



Intelligent Automation (IA)

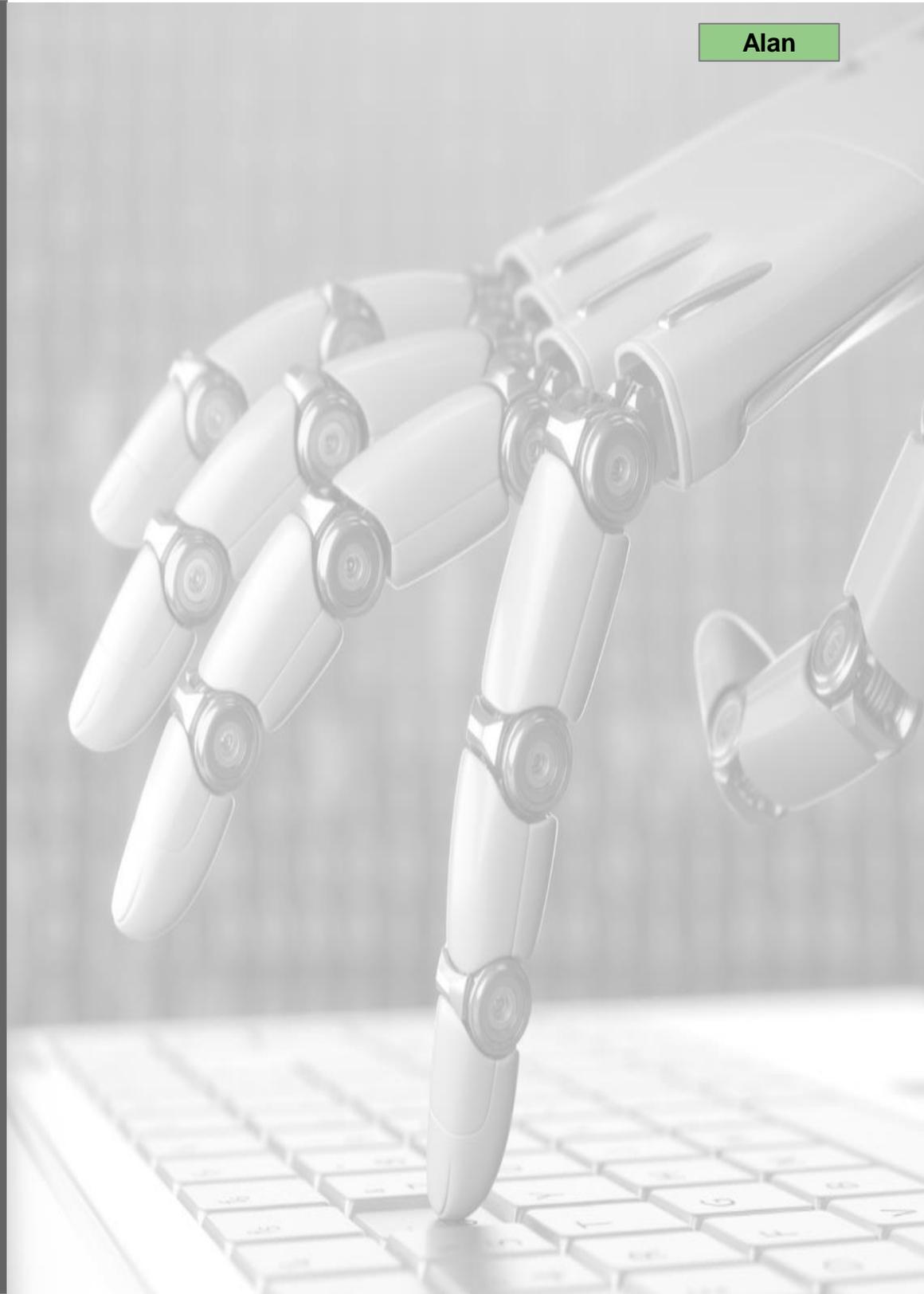
A critical component of Business Transformation

Technology Summit 2019

May 13, 2019

Discussion Topics

- 1 Introductions
- 2 Intelligent Automation (IA) overview
- 3 What State of Georgia is doing
- 4 Why you should be looking at it now
- 5 Implementation considerations



Automation is revolutionizing “work”...but is only the beginning

Organizations are becoming more “efficient” as they use automation to “do things differently” but breakthrough performance will be achieved by using “intelligence” to “do different things”...

1970’s and prior
Human labor intensive

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100100
110101

Manual

Armies of human FTEs manually performed pricing, costing, recording, reporting, recruiting, IT support, etc.

1980’s
Step change in efficiency



Computers

Customized data warehouses and office applications allowed more time for analysis and less to produce the data

1990’s to present
Added effectiveness



Applications

ERP, CRM, SCM, HRIS, EPM, etc. represent “purpose” built, “out of the box” applications requiring only configuration

“ We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. ”

-World Economic Forum, 2016

Today



“Digital Revolution”

Intelligent Automation

Tomorrow...

Human & Machine
Collaboration



30 – 40%
of existing business process services are likely to be impacted by RPA
-Gartner

85%
of a typical firms 900+ processes can be automated.
- McKinsey & Company

“Just as machines made human muscles a thousand times stronger, automation software will make the human brain a thousand times more powerful...augmenting professionals, offering them expertise and assistance.”
- NewYorker.com

Automation will
disrupt every
organization

Today...Only 3% of
the potentially useful data
is tagged, and even less is
analysed.
-IDC

Components of Intelligent Automation

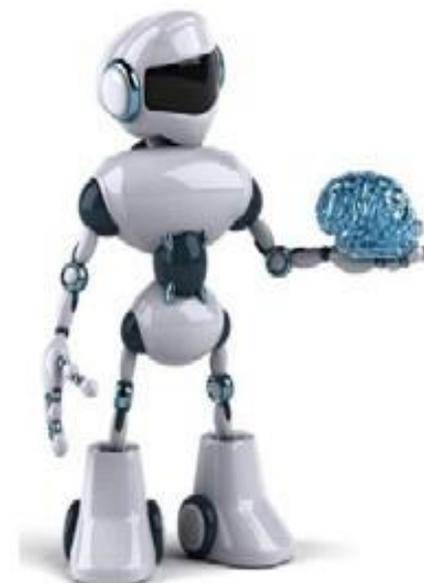
Meet the Digital team

Robotic Process Automation "RPA"

Cognitive Automation

Chatbots

"AI" Artificial Intelligence



Digital Worker

Digital Reader

Digital Talker

Digital Thinker

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

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

- ⚙️ Communication focused
- ⚙️ Predictive Behavior Text
- ⚙️ Conversational Voice

- ⚙️ Algorithm driven insights
- ⚙️ Predictive Analytics
- ⚙️ Big Data focused

RPA demonstration and video

Human resources Blue Prism software

Aaron

Alan

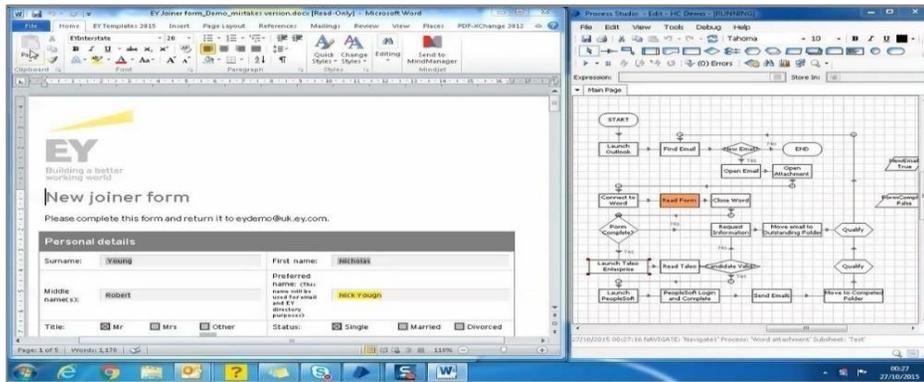
EY demonstration – Employee onboarding

Return on time: 138 minute process reduced to 3

Return on quality: 100% accuracy

Return on experience: Increased new hire satisfaction

Return on risk: all steps completed timely



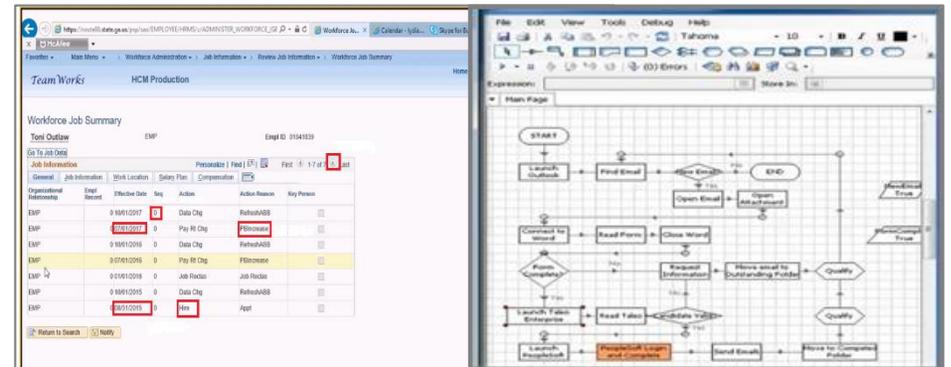
GA case study – Employment Verification

Return on time: 60 minute process reduced to 4

Return on quality: 100% accuracy

Return on experience: Rapid cycle time, 100% coverage

Return on risk: Structured intake template with validations



Digital worker

- Emails new hire to complete the New Joiner Form
- Upon receipt realizes it needs more information
- Once received again, it verifies all information
- Sets up new employee in enterprise systems Performance Management and PeopleSoft
- Sends out emails to Security, Payroll, Training, and facilities to set up the new employee

Digital worker

- Performs quality checks on the intake form
- Encrypts the private information
- Accesses enterprise systems such as Peoplesoft to loop through requested fields
- Creates Word and PDF results for process owner to review
- Updates status report on progress and productivity

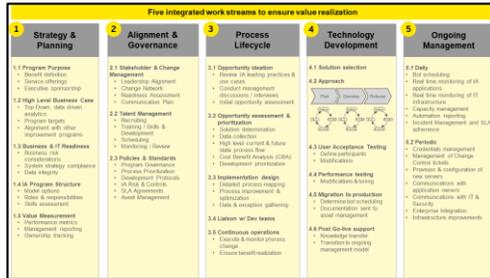
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Intelligent Automation at the State of Georgia

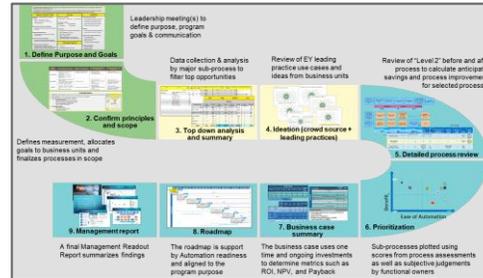
Actions we are taking to save hours and refocus our efforts



Operating Model

Governance and Process

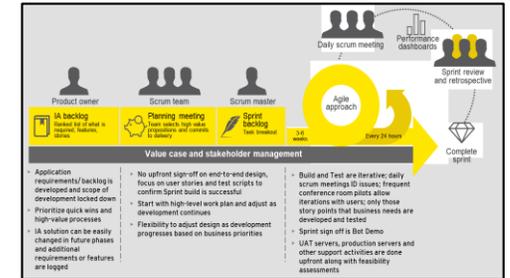
- Strategy and Planning
- Alignment and Governance
- Process Lifecycle
- Technology Development
- Ongoing Management
- Raised awareness of the program



Opportunity Assessment

Unlock Hours

- Dozens of use cases
- Prioritized pipeline
- Opportunity roadmap
- Activated champions



Automation Delivery

Creating a Digital Workforce

- Shifting energy to development
- Building new capabilities
- Focusing on pipeline build

Intelligent Automation Opportunity Assessment Results

Executive Summary

Key metrics

- 113** Sub-processes identified
- 33** Sub-processes further assessed and prioritized
- 13** Sub-processes with deep dive assessments
- 9,222** Potential annual hours saved from automating the recommended processes at a single agency*
- 121,332** Potential annual hours saved from automating the recommended processes at scale

Purpose & Scope

To identify intelligent automation opportunities and process improvement recommendations that optimize key business functions in state government

Perform deep dive assessments on prioritized recommended use cases and business priorities. Assessment functions and process areas include:

- Finance
- Human Resources
- Payroll
- Procurement

Produce a consolidated business case, roadmap, and management report summarizing the findings for the top 12 use cases and consolidated pipeline

“It’s about adding value and using intelligent automation, not bots”

*Alan Skelton, Chief Accounting Officer
State Accounting Office*

Year	FY20	FY21	FY22	FY23	FY24
Total Benefits	\$3,602,675	\$4,460,736	\$4,460,736	\$4,460,736	\$4,460,736
Total Costs	\$637,682	\$237,074	\$237,074	\$237,074	\$237,074
Net Benefit	\$2,964,993	\$4,223,661	\$4,223,661	\$4,223,661	\$4,223,661
Five Year Net Benefit	\$19,859,638				

*Agencies interviewed include SAO, DOAS, DOL, DOC, and TCSG

Top prioritized use cases

Our findings below meet the qualified criteria for Intelligent Automation including rules based, repetitive, and deterministic in nature

#	Function	Process Name	Issues and Challenges
1	Human Resources	Applicant Screening	This process is time consuming and cannot always accurately identify qualified candidates
2	Human Resources	Onboarding Data Reconciliation	This process requires end-to-end manual interactions. As a result, there is a risk of errors associated with time for correction taken from other activities.
3	Human Resources	Employment Verification	This process solely relies on manual interactions. Due to the high volume and extra time associated with manual interactions, the team is unable to fully allocate their time to providing HR services to the state
4	Payroll	SHBP Reconciliation	This process solely relies on manual interactions. Due to the extra time associated with manual interactions, the team is unable to fully allocate their time to capturing revenue for the agency.
5	Payroll	Parking Reconciliation	This process solely relies on manual interactions. Due to the extra time associated with manual interactions, the team is unable to fully allocate their time to capturing revenue for the agency.
6	Payroll	941 Quarterly Tax Reconciliation and Reporting	This process solely relies on manual interactions. Due to the extra time associated with manual interactions, the team is unable to fully allocate their time to capturing revenue for the agency.
7	Payroll	Labor Release and Validation	This is a very time consuming process that requires manual entries and various communication exchanges, which results to extended periods of lag time.
8	Finance	Airplus Billing and Payments	The process is highly manual and requires dedicated focus for two full business weeks each month
9	Finance	CTAS Bank Reconciliation	There is significant manual interaction needed to perform this process with room for manual error
10	Finance	Verizon Invoice Processing and Payments	The process is repetitive, time consuming, and requires pulling information for multiple data fields
11	Procurement	Hosted Catalogue Refreshes and Expirations Notifications	This is a time consuming process that requires many email communication exchanges between stakeholders. In addition, the risk associated with an expired contract results to a loss of incoming cashflow/revenue.
12	Procurement	Real-Time Quality Review and Flagging of Open POs	Due to large volume of POs that are untouched after being created and the inability to track these efficiently and in real-time, the Agency experiences challenges and delays to capitalize on capturing refunds/revenue.
13	Procurement	PCard Reconciliation Against POs	The current process is automated, however it requires a manual interaction to initiate the program. In addition, the current process does not possess tracking mechanisms for management visibility and reporting purposes.

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Why this is a top priority at the state level

What is the value to you?



Problem:

We must challenge the 'what' in our operations in order to improve our business with the state and serve the public better



Solution:

Create a Digital Workforce to further enable our people



Result:

- ✓ Improve efficiency
- ✓ Reduce errors
- ✓ Unlock human capacity
- ✓ Faster returns
- ✓ Reduce Risk
- ✓ Enable scalability
- ✓ Improve service delivery
- ✓ Plan for the uncertain future

Measuring success

We expect measurement by many “mission outcomes” across the state



Improve Efficiency

When systems integrate human, robotic and cognitive automation, a new level of performance occurs and the basis for operations shifts

Potential Success Metrics

- ▶ Freed up FTE capacity
- ▶ Cost avoidance
- ▶ Reduced contingent and contract labor
- ▶ FTE optimization
- ▶ Optimal use of budget



Optimize Performance

Intelligent models can learn from data and discover deeper insights to improve performance, scaling human-like judgment

Potential Success Metrics

- ▶ Improved accuracy
- ▶ Better predictability
- ▶ Contract support
- ▶ Reduced waste
- ▶ Fewer decision loops
- ▶ Less downtime
- ▶ Increased reach



Sustain Trust

Robotic, cognitive and autonomous systems can improve accuracy, identify and defend against network threats, see patterns of fraud and promote compliance

Potential Success Metrics

- ▶ Increased testing/ audit coverage
- ▶ Less fraud incidents
- ▶ Contract compliance %
- ▶ Hard dollar savings
- ▶ Real time quality checks



Enhance Experiences

Citizen, employee and vendor experiences and interfaces are evolving to reflect technology that can now predict, sense, learn, understand, engage and navigate

Potential Success Metrics

- ▶ Improved citizen, employee & vendor satisfaction scores
- ▶ Citizen satisfaction
- ▶ Employee retention
- ▶ Recruiting efficiency
- ▶ 24/7 citizen support

State Themes and “Hot Spots”

There are many areas where Intelligent Automation is making an impact at the State level

State themes

- ▶ High level of autonomy
- ▶ Pockets of shared service-like approaches
- ▶ Scalable processes across agencies / institutions
- ▶ ‘We are more similar than we think’
- ▶ Very manual and paper based
- ▶ Low resistance to ‘give the work up’

“Intelligent Automation Hot Spots”

Finance and Accounting

- ▶ Account / Bank reconciliation
- ▶ Data Validation
- ▶ Recurring invoices and billing
- ▶ Payroll
- ▶ Reporting

Call Centers

- ▶ New citizen or customer setup
- ▶ Collating Agency-specific information
- ▶ Desktop agents
- ▶ Chatbots

Human Resources

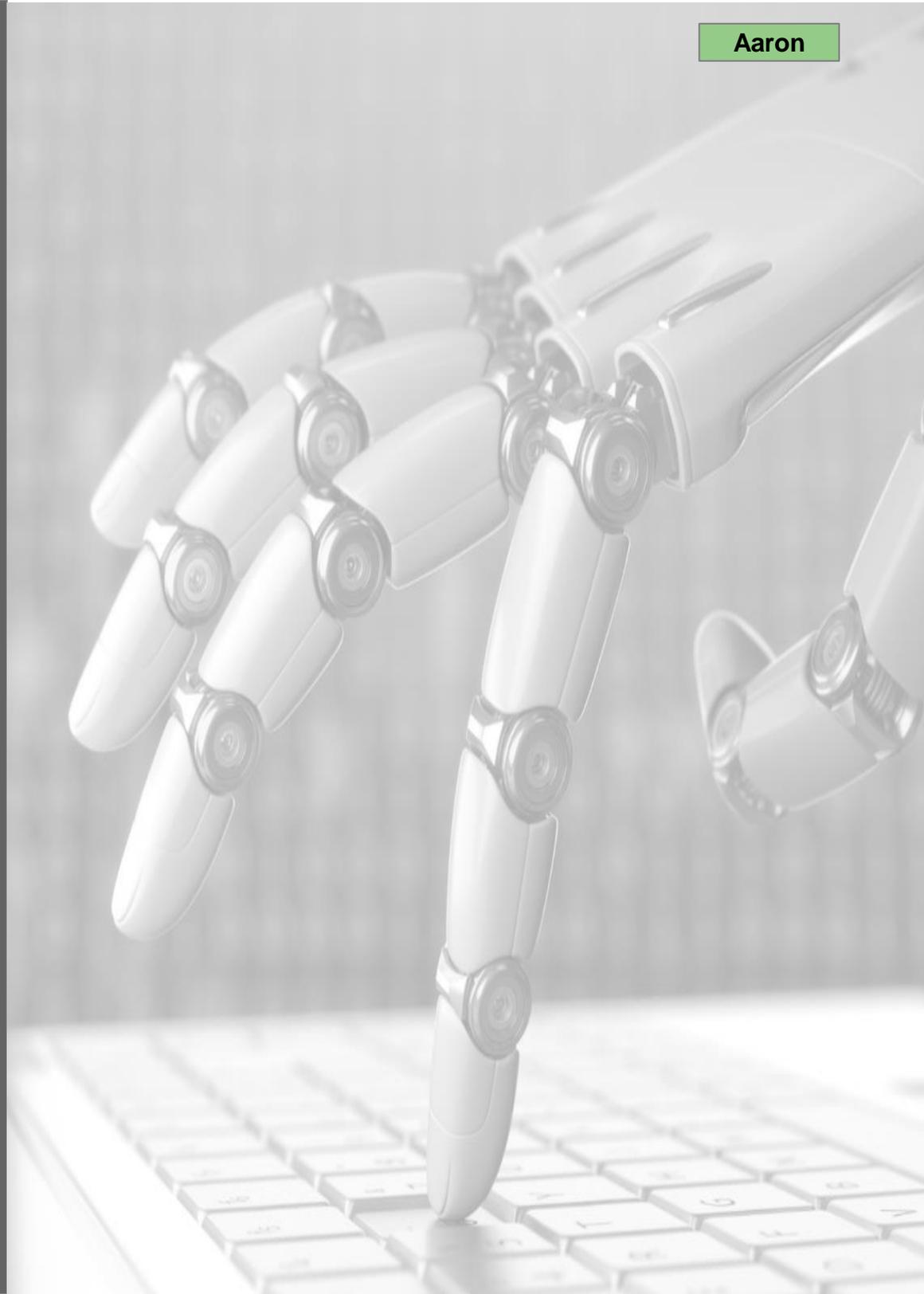
- ▶ Recruiting and resume screening
- ▶ Onboarding and offboarding
- ▶ Employee registration and validation
- ▶ Policy reviews
- ▶ Timesheet validation and follow up

Procurement

- ▶ Contract management and set up
- ▶ Buy versus spend analysis
- ▶ PO and Requisition creation / audit
- ▶ Strategic Sourcing / Event Sourcing
- ▶ PCard set up and maintenance

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IA Lessons Learned and Guiding Principles

Organizations that have achieved significant benefits have learned what it takes to be successful

#1 Guiding Principle Focus on purpose and business issues first

Building a “**program**” that activates multiple functions and Business Units (BUs) around a common purpose and set of success metrics, is the best method to scale and achieve significant benefits

While process standards and maturity impact Intelligent Automation potential, there are typically significant benefits realized

Finance & Accounting 40%-60% Reduction in effort to process an invoice	HR Services 60-80% Decrease in time to onboard a new employee	IT Services 20% -30% Reduction in effort across data and services	Tax 20% -30% Reduction in preparation efforts
Risk & Controls 60%-90% Increase in sample size of audit data	Procurement 15%-30% Productivity increase in requisition creation	Supply Chain 50-75% Increase in forecast accuracy	Operations 25%-50% Less time per call center inquiry

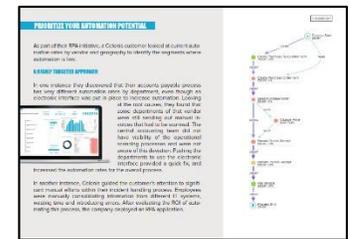
Guiding Principle #2 Plan for process and organizational change

To ensure automation **efforts lead to real improvement**, it is necessary to evaluate and manage organizational and process changes required to roles, responsibilities and reporting structures

Understand current state “spans & layers” (PAS Talent Hub tool)



Use data driven tools to identify opportunities (Celonis, Pega, etc.)

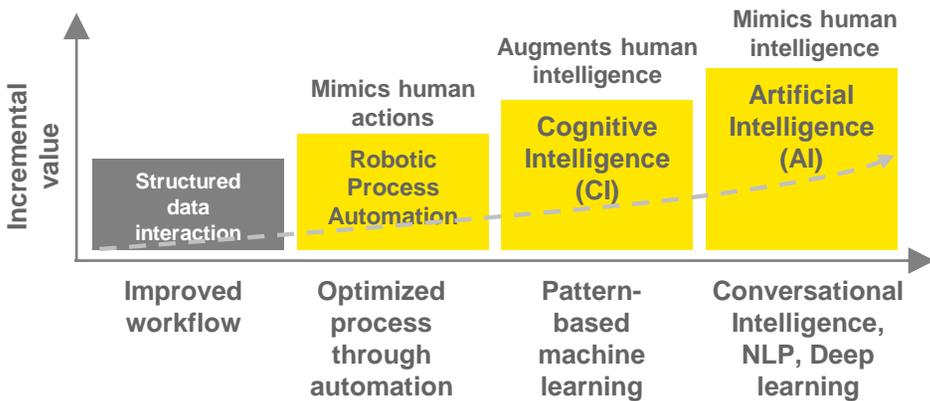


IA Lessons Learned and Guiding Principles continued

Organizations that have achieved significant benefits have learned what it takes to be successful

#3 Guiding Principle Consider IA solutions holistically

IA is a *spectrum of technologies that should work together*. Assessing the impact of Robotic Process Automation (RPA) and various forms of AI together is most effective and efficient



Guiding Principle #4 Use a balanced implementation approach

We believe it is important to *keep the 3 work streams below in sync* with each other to ensure longer term success and avoid delays in reaching the Automation ROI



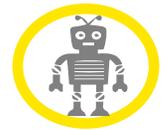
1. IA Strategy Development

Steer the program



2. Establish operating model

Lay the foundation



3. Automation delivery & IT enablement

Accelerate execution

Closing thoughts...



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