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”…

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

“Digital Revolution”

Automation will disrupt every organization

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

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
Components of Intelligent Automation
Meet the Digital team

**Robotic Process Automation “RPA”**
- Entering data into systems
- Processing data in Excel
- Sending emails
- Comparing data sets

**Cognitive Automation**
- Machine learning
- Keyword-base recognition
- Unstructured to structured translation

**Chatbots**
- Communication focused
- Predictive Behavior Text
- Conversational Voice

**“AI” Artificial Intelligence**
- Algorithm driven insights
- Predictive Analytics
- Big Data focused
**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

**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

**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**
- 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

<table>
<thead>
<tr>
<th>Year</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Benefits</td>
<td>$3,602,675</td>
<td>$4,460,736</td>
<td>$4,460,736</td>
<td>$4,460,736</td>
<td>$4,460,736</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$637,682</td>
<td>$237,074</td>
<td>$237,074</td>
<td>$237,074</td>
<td>$237,074</td>
</tr>
<tr>
<td>Net Benefit</td>
<td>$2,964,993</td>
<td>$4,223,661</td>
<td>$4,223,661</td>
<td>$4,223,661</td>
<td>$4,223,661</td>
</tr>
<tr>
<td>Five Year Net Benefit</td>
<td>$19,859,638</td>
<td></td>
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</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>#</th>
<th>Function</th>
<th>Process Name</th>
<th>Issues and Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Human Resources</td>
<td>Applicant Screening</td>
<td>This process is time consuming and cannot always accurately identify qualified candidates</td>
</tr>
<tr>
<td>2</td>
<td>Human Resources</td>
<td>Onboarding Data Reconciliation</td>
<td>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.</td>
</tr>
<tr>
<td>3</td>
<td>Human Resources</td>
<td>Employment Verification</td>
<td>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</td>
</tr>
<tr>
<td>4</td>
<td>Payroll</td>
<td>SHBP Reconciliation</td>
<td>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.</td>
</tr>
<tr>
<td>5</td>
<td>Payroll</td>
<td>Parking Reconciliation</td>
<td>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.</td>
</tr>
<tr>
<td>6</td>
<td>Payroll</td>
<td>941 Quarterly Tax Reconciliation and Reporting</td>
<td>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.</td>
</tr>
<tr>
<td>7</td>
<td>Payroll</td>
<td>Labor Release and Validation</td>
<td>This is a very time consuming process that requires manual entries and various communication exchanges, which results to extended periods of lag time.</td>
</tr>
<tr>
<td>8</td>
<td>Finance</td>
<td>Airplus Billing and Payments</td>
<td>The process is highly manual and requires dedicated focus for two full business weeks each month</td>
</tr>
<tr>
<td>9</td>
<td>Finance</td>
<td>CTAS Bank Reconciliation</td>
<td>There is significant manual interaction needed to perform this process with room for manual error</td>
</tr>
<tr>
<td>10</td>
<td>Finance</td>
<td>Verizon Invoice Processing and Payments</td>
<td>The process is repetitive, time consuming, and requires pulling information for multiple data fields</td>
</tr>
<tr>
<td>11</td>
<td>Procurement</td>
<td>Hosted Catalogue Refreshes and Expirations Notifications</td>
<td>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.</td>
</tr>
<tr>
<td>12</td>
<td>Procurement</td>
<td>Real-Time Quality Review and Flagging of Open POs</td>
<td>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.</td>
</tr>
<tr>
<td>13</td>
<td>Procurement</td>
<td>PCard Reconciliation Against POs</td>
<td>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.</td>
</tr>
</tbody>
</table>
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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

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>State themes</th>
<th>“Intelligent Automation Hot Spots”</th>
</tr>
</thead>
<tbody>
<tr>
<td>► High level of autonomy</td>
<td>► High level of autonomy</td>
</tr>
<tr>
<td>► Pockets of shared service-like approaches</td>
<td>► ‘We are more similar than we think’</td>
</tr>
<tr>
<td>► Scalable processes across agencies / institutions</td>
<td>► Very manual and paper based</td>
</tr>
<tr>
<td></td>
<td>► Low resistance to ‘give the work up’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finance and Accounting</th>
<th>Call Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Account / Bank reconciliation</td>
<td>► New citizen or customer setup</td>
</tr>
<tr>
<td>► Data Validation</td>
<td>► Collating Agency-specific information</td>
</tr>
<tr>
<td>► Recurring invoices and billing</td>
<td>► Desktop agents</td>
</tr>
<tr>
<td>► Payroll</td>
<td>► Chatbots</td>
</tr>
<tr>
<td>► Reporting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human Resources</th>
<th>Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Recruiting and resume screening</td>
<td>► Contract management and set up</td>
</tr>
<tr>
<td>► Onboarding and offboarding</td>
<td>► Buy versus spend analysis</td>
</tr>
<tr>
<td>► Employee registration and validation</td>
<td>► PO and Requisition creation / audit</td>
</tr>
<tr>
<td>► Policy reviews</td>
<td>► Strategic Sourcing / Event Sourcing</td>
</tr>
<tr>
<td>► Timesheet validation and follow up</td>
<td>► PCard set up and maintenance</td>
</tr>
</tbody>
</table>

Intelligent automation
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IA Lessons Learned and Guiding Principles

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

**Guiding Principle #1**
**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.)

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Intelligent automation
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.

#4 Guiding Principle
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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