THE MISSED OPPORTUNITIES WITH RPA

May 15, 2018
Kevin Kroen

Partner, US Financial Services RPA Leader, PwC

Phone: (646) 471-0238
Email: kevin.kroen@pwc.com

Kevin is a partner in PwC’s Advisory practice, specializing in middle and back office transformation across the Financial Services sector. Kevin leads PwC’s Financial Services Digital Labor practice in the US and plays a key role leading our services in robotic and intelligent process automation across all of PwC’s financial services sectors (Insurance, Banking and Capital Markets, and Asset Management) and competencies (Finance, Operations, Risk, Compliance, HR, etc.). Kevin has over 18 years of management and technology consulting experience, exclusively in Financial Services.

Kevin has a BS degree from Carnegie Mellon University in Information and Decision Systems. Prior to joining PwC, Kevin worked as a Financial Services consultant for Diamond Management and Technology Consultants and Accenture.
Itay Reiner is a Director of Product Management at NICE Advanced Process Automation Line of Business. Itay is leading the LOB Product Team responsible for NICE Automation Product Portfolio: Robotics Automation, Desktop Automation, Cognitive Automation and Desktop Analytics. Itay & his team are directly collaborating with NICE APA customers across the globe to ensure successful POCs, implementation and utilization of NICE Advanced Process Automation solutions. Itay holds a B.Sc. in Mathematics and Computer science from Tel-Aviv University.
Executive Expectations - Framing RPA on the C Suite Agenda

Evolution and Call to Action on Robotics

Presence

Human Workforce

Use of Robotics

Where we are today

Mainstream Adoption

2005-2015

Location Strategy, Outsourcing & Lean

Simplification and migration of manual tasks to off-shore locations – effective strategy for decades, expanding to more sophisticated tasks

2015-Present

Robotics Process Automation (RPA)

Applies technology to create “bots” to replace humans who plug the gaps between non STP systems – “low value activity”

Fast Emerging

Intelligent Process Automation (IPA)

Incorporates cognitive intelligence to execute tasks and update rules based on “learned” trends, requiring minimal human oversight
Executive Expectations – Tall Tales

**Overpromising**

- “You can save 70% of your operational costs”
- “Onshore resources cost $150K/FTE, offshore $30K/FTE, no-shore (RPA) is only $10K/FTE!”
- “RPA can be done without IT partnership”
- “RPA is all you need to digitize your operations”
- “RPA is going generate massive headcount reduction”

**Underpromising**

- “There’s no opportunity for RPA; we've already automated rules based work and everything we have requires judgement so we’ll wait for machine learning”
- “I can solve this more intelligently with custom application development”
- “Our operation is too small to overcome fixed cost investments”
- “Change management is too difficult”
- “The technology generates too much operational risk”
Executive Expectations – Setting the “Right” Expectations

• There are opportunities right now to leverage RPA to gain benefit

• Benefits might include cost savings, but more immediate result is to free capacity, improve employee morale, and increase quality

• RPA is the start and a great foundational element, but true intelligent automation as part of a digital transformation will introduce numerous other investments that turn RPA into a feature rather than a tool

• Low and no code tools will introduce opportunities for non IT staff to take a more hands on role (both in building and supervising), which will require upskilling

• RPA can significantly improve your current risk profile, but it generates new risks that need to be managed
RPA Benefits – Setting the “Right” Expectations

24x7
Increase Throughput

Efficient
Reduce Cost

Fast
Reduce Workload

Flawless
Eliminate Errors

Focus
Increase Employee Engagement

Expect Value Within ??? Months
# Failed business case – Challenges and best practices in proving the value

<table>
<thead>
<tr>
<th><strong>Savings/Cost Analysis</strong></th>
<th><strong>Best Practices</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenges</strong></td>
<td><strong>Best Practices</strong></td>
</tr>
<tr>
<td>• Build and run costs are too high</td>
<td>• An all inclusive RoI case that considers all elements across Strategy, Plan, Build and Run, including:</td>
</tr>
<tr>
<td>• Missing key components of total cost of ownership – “startup costs”, delivery and enterprise maintenance</td>
<td>- <strong>Foundational</strong>: The costs of building a high performing team and operating model to build and run RPA.</td>
</tr>
<tr>
<td>• FTE saves based on capacity improvement, not role elimination</td>
<td>- <strong>Project execution</strong>: Case by case project costs such as process analysis, setup, development contingency for overrun.</td>
</tr>
<tr>
<td>• Incorporating SME time, internal IT and other “blue dollar” costs</td>
<td>- <strong>Strategic</strong>: Capacity to assess more sophisticated RPA capabilities such as AI and OCR tool</td>
</tr>
<tr>
<td>• Handling cost allocation (e.g., from COE)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunity Assessment</strong></th>
<th><strong>Delivery Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenges</strong></td>
<td><strong>Best Practices</strong></td>
</tr>
<tr>
<td>• Skipping an opportunity assessment altogether presents challenges in governance and developing pipeline for bot development</td>
<td>• Controls are in place to ensure that systems are upgraded and standardized prior to Bot development</td>
</tr>
<tr>
<td>• Only targeting task level activities and not end-to-end processes</td>
<td>• Strong governance discipline is required when deploying bots in order to avoid proliferation of inconsistent bots</td>
</tr>
<tr>
<td>• Understanding processes at a granular level, with proper documentation, and a single process owner to drive the future state in each area</td>
<td>• Systems, test data requirements and formats are consistent across development, testing and production</td>
</tr>
<tr>
<td>• Infrastructure does not fully support RPA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Skillset</strong></th>
<th><strong>Delivery Risk</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenges</strong></td>
<td><strong>Best Practices</strong></td>
</tr>
<tr>
<td>• Lack of internal knowledge for RPA delivery and support</td>
<td>• Utilize the apprenticeship model – learning while Doing</td>
</tr>
<tr>
<td>• Heavy reliance on vendor and 3rd Party labor</td>
<td></td>
</tr>
<tr>
<td>• Knowledge of tool functionality</td>
<td></td>
</tr>
</tbody>
</table>
NICE Automation Finder will help to find the right automation opportunities

- Combine our unique desktop analytics with machine learning capabilities to automatically identify and build processes
- Higher saving potential – faster automation TTM
- Great tool for POCs

Automation Finder
- Detecting Automation Opportunities

Automation Studio
- Fast Creation with Automation Studio

Automation Creator
- Automatic Creation with Automation Creator
## NICE Automation Finder

**powered by nice desktop analytics**

### Table

<table>
<thead>
<tr>
<th>Sequences</th>
<th>Occurrences</th>
<th>Avg. Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Time</td>
<td>Used Applications</td>
<td>Unique Users</td>
</tr>
</tbody>
</table>

**Automation Opportunity Score**
Introducing NICE New Automation Studio

Clear Differentiator
Enabling less technical users to utilize the product, reducing training needs

Continuous Value
Next generation UI tool to create and manage automations with built-in intelligence

Easier Automation
Provide continued value to APA customers as new features are continuously updated from the cloud
Automation Studio Unique Differentiators & Benefits

**Continuous Delivery**
New features are continuously updated from the cloud

**Single Tool Supports Multiple RPA Deployments**
- Single design tool to support all automation types: unattended, attended and cognitive
- Reduces training needs

**Next Generation UI with Built-in Intelligence**
- HTML 5 based (latest technology, rich design)
- Built-in intelligence guiding the user with the correct building blocks in order to create successful and sustainable automations

**Next Generation UI with Built-in Intelligence**
- Layered development approach – if a connectivity break is fixed, other workflows accessing the same application will still work
- The tool supports two types of connectivity: Object and surface based, enabling more automations
### Building a proper RPA business case

#### Costs & Benefits

**Cost of Bot Acquisition**
- Provisioning Costs
- Configuration/Development
- Process Design Work
- Project Management
- License Costs

**Cost of Operating a Bot**
- Maintenance/Upgrades
- Change Management
- Support Staff
- COE Allocation
- Enterprise Training Budget
- Ongoing License Costs

#### Optimization Levers

**Infrastructure Sophistication**
- Cloud vs. Server
- Provisioning Time

**Deployment Framework**
- Power User vs. IT Driven
- Agile vs. SDLC
- Labor costs

**COE Model**
- Centralized vs. Decentralized
- Vendor upgrade model
- Training program model

#### Benefits

- Capacity free up & realization
- Capacity free up & redeployment
- Improved control/customer experience

### Building a TCO & Business Case Model

**Total Cost of Ownership Model**
- Identify source and capture all data attributes related to total cost of ownership
- Similar to understanding the fully loaded cost of a person, a way of monitoring TCO is critical to understanding if bots are being implemented effectively or not

**Business Case Model**
- Utilize standardized inputs agreed by technology and other stakeholders
- Accurately capitalize each cost component
- Distinguish capacity created vs. staff out
- Provide scenario capabilities for:
  - “Power user” vs. “IT-driven” model
  - Use case complexity
- Bifurcate “bot” and “use case” – some use cases will not need new bots
- Allow simulation of a “roadmap” over period of time and phasing of use case benefits
- Add way to measure additional value components, such as operational risk
- Provide payback, ROI and net benefit numbers incorporating NPV as appropriate for businesses to properly manage program business case
NICE Procumbent - Shifting from tactical to strategic procurement

“Can your robots free 2 hours per day for each member of the team?”

Phase 1 – Delivered: (Implemented in Production)
- Moving tactical non added values activities to RPA:
  - Standard BD processing to PO
  - Contracts uploading
- GPD team to negotiate PO’s 0-5K$, 300K$ savings target.

Phase 2 – Q2/18: (In progress)
- Continue with reducing the non-added value activities:
  - Non Standard BD processing to PO
  - RPA to “Automatically Negotiate” 0-5K$
- GPD team to negotiate PO’s 5-10K$, 400K$ savings target
Poor implementation/delivery framework – what bad happens?

- Bots took longer to deliver than expected
- Bots didn’t work
- Bots are unstable in production
- Bots are pulled in Production by external stakeholder concerns
- Bots don’t even make to Production – “Perma Proof of Concept”
- No one considers impact to Operating Model
CONTROL AND MONITOR

View system health in real time
All system components on both server side and client side

Get Alerts if any issue arises
Know immediately if some system component is down

Identify Business Exceptions
Understand when business exception occurs

Track Changes
Verify effectiveness of corrective actions taken
NICE Control Room – Managing The Digital Workforce
AI Enabled Exception Handling will be our first pass at cognitive decisioning

- Connectivity Watcher - Innovative solution with unique capabilities for recognizing connectivity break at run-time
- Utilizing Analytics & ML to handle business and technical exceptions

Exceptions events stream
Exceptions pattern recognition
Agent resolution events Stream
Training the ML engine based on the exception-resolution events/patterns
Exception Handling Approval
Robot is automatically built to published the updated flow
Advanced Operational Insights

- Enhanced Visualizations
- Analytics & BI

Data Collection

NICE APA Platform
- Collecting Advanced Operational Data
  - Run-time Logic performance
  - Connectivity Performance
  - Robot Queue Performance
  - OS Data
  - Customized Data

Operational Database

Attended & Unattended Robots

Advanced desktop data collection combined with advanced analytics enabling unique operational insights for improved performance and efficient maintainability
Organizing Your Delivery Framework

Culture drives right type of deployment model. Organizations often do not fall into one bucket

**Business Center of Excellence**
- Bots configured and managed by a group within the business with little oversight from IT
- **Pros:**
  - Consistency of approach within the business
  - More understanding of business objectives & goals
  - Centralizes effort within business or function allowing higher control over ROI
- **Challenges:**
  - Scale is difficult to achieve within a business-aligned team
  - Lacks “IT Controls”
  - Potential skillset gap for certain RPA software

**Augmented Analyst**
- Bots configured and managed by individual users within the business (e.g., user owned VDIs)
- **Pros:**
  - Bots configured and managed by individual users
  - Enables mass adoption
  - Focus on enabling productivity increase per worker
- **Challenges:**
  - Requires close attention to risk & control framework & ROI (e.g., VDI, License costs)
  - Lacks “IT Controls”
  - Culture could inhibit adoption

**IT Factory**
- Bots managed by a central enterprise group within IT
- **Pros:**
  - Scale and consistency across the enterprise
  - Skillset to build tools that require more RPA skillset
  - Enables “IT Controls”
- **Challenges:**
  - Time to market for new bots
  - SLA management post production
  - Operating model complexity (e.g., BA, Dev, PM, SME, etc., )

**Business/Function Aligned IT**
- Bots managed by decentralized business units
- **Pros:**
  - Scale and consistency across business or function
  - Knowledge of business aligned applications
  - BU has the skillset to build tools that require more RPA experience
  - Enables “IT Controls”
- **Challenges:**
  - Consistency within the enterprise
  - Competing budget priorities
  - Time to market for new bots
  - SLA management post production
  - Operating model complexity (e.g., BA, Dev, PM, SME, etc., )

**User Driven**
- Bots configured and managed by individual users within the business (e.g., user owned VDIs)
- **Pros:**
  - Bots configured and managed by individual users
  - Enables mass adoption
  - Focus on enabling productivity increase per worker
- **Challenges:**
  - Requires close attention to risk & control framework & ROI (e.g., VDI, License costs)
  - Lacks “IT Controls”
  - Culture could inhibit adoption
Organize Your Delivery Platform

NICE Unified Automation Platform Strategy

Unified Control / Monitoring for the entire Digital workforce

Quicker Training & Onboarding of new developers

Unified Center of Excellence Aligned best practices

Reduced TCO Utilizing the same backend

Executing Complex Automations chat-bots, attended – unattended

Simpler & Shorter Development Single integration point

Holistic Business Insights Advanced analytics & centralized BI

Enhanced Security & Audit certify / analyze / audit – just once

Cognitive Services
Integration Layer
Design Environment
Reports
Business & Operational Data Collection
Control Room

NICE Automation Platform

Desktop Analytics
Desktop Automation
Robotic Automation
Cognitive Automation
FRAMEWORK FOR CONSIDERATION

Key Success Factors

- Measure and manage pipeline
- Iterate to maturity
- Optimize COE resources
Lack of organizational buy-in and failed people strategies

- No defined approach to realize benefits of RPA
- Lack of understanding of impact on longer term workforce/communities as technology matures
- No plan on how to better involve employees in journey
Impact to the workforce – People impacts of automation

Automation will impact people management and how a company thinks about its workforce

**How risks of automation are managed**
How will people, cyber security, productivity and reputation risks be managed?

**How people are reskilled and prepared for lifelong learning**
How effective is your learning function at building an adaptive workforce?

**Impact on jobs, compensation, structure and transition**
What capabilities are required? How will jobs, structures and compensation evolve?

**How open people are to new ways of working and capacity for change**
How will current behaviors and/or mindsets change? What can leaders do to drive awareness and adoption?

**How automation aligns with corporate purpose**
Is your organization demonstrating a commitment to sustaining jobs in the local community?

**Impact on people policies and decision-making process**
What types of people policies are necessary to enable the new ways of working?
## Impact to the workforce – Practical impacts

### Managing the people directly impacted by workforce demand changes goes beyond workforce reduction and re-alignment

<table>
<thead>
<tr>
<th>Description</th>
<th>Considerations</th>
<th>Key questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce reskilling</td>
<td><strong>Embedding core automation technology skills into business</strong> • New or different skill sets needed due to elimination of repeatable tasks and focus on more strategic work • Need for recruitment of new talent • Mechanism for knowledge sharing across the firm</td>
<td>• Do you have a mechanism to train employees i.e. outsourcing service? • Do you have a plan to recruit and retain employees for strategic goals?</td>
</tr>
<tr>
<td>Spans and layers</td>
<td><strong>Impact of automation to business process ownership and supervisory model</strong> • Changes to organizational design, including reporting structures, due to new technology and processes • Changes to the way people engage with business processes and the complexity of tasks they focus on • Physical workplace changes due to different people/roles</td>
<td>• How should RPA changes impact the design of the organization, including roles and reporting structures?</td>
</tr>
<tr>
<td>Organization re-design/Alignment</td>
<td><strong>Leveraging RPA benefits into opportunities to re-shape current function footprint</strong> • New opportunities to capture and measure people data, including identification of behavioral data patterns • Need for retraining or redeployment of existing talent • Training needed to bring people up to speed on changes, as well as reskill employees for new kinds of roles</td>
<td>• What metrics can assess RPA impact across processes and people? • How can new data related to RPA implementations be integrated with other people-related metrics?</td>
</tr>
<tr>
<td>Career models</td>
<td><strong>Impacts to future career paths, and the role of ‘run the bank’/’change the bank’ career paths</strong> • Shifts in performance management and rewards • Changes to the desired skills/experience for entry level employees • Re-aligning teams to leverage new mix of skills and experience</td>
<td>• What does my future workforce need to look like? • How will RPA impact the way our people and their roles are viewed (e.g., value-focused talent strategy)?</td>
</tr>
</tbody>
</table>
Employ Attended & Unattended Automation

**Attended Desktop Automation**
- Allows for human supervision and feedback
- Guides using callouts
- Supports real-time decision making
- Triggers unattended flows

**Unattended Robotic Automation**
- Runs independently
- Reports in real-time
- Adheres to quality and speed KPIs and SLAs
- Increases customer and employee satisfaction

**Collaboration**
Meet NEVA
The first virtual attendant designed for employees

- NEVA is every employee’s personal assistant
- She can help with systems, processes and policies
- She is always on – waiting to be called on
NEVA Boosts Efficiency, Compliance Adherence, and Sales

- Provides quick links to data, systems and actions
- Analyzes data & performs calculations
- Automates routine activities on behalf of the employee

- Prompts employees with disclaimers
- Ensures that compliance-related tasks are completed
- Collects business data for compliance assurance

- Displays relevant sales offers drawn from NBO engines
- Prompts employees with the perfect sales script
- Automates order execution

Employee onboarding Service consistency Productivity improvement
Immediate alignment to new policies Easy Distribution of new messaging
Increases service-to-sales success Improves customer retention
Thank You

smart interactions in the CLOUD

NICE inContact
How was the SESSION?

Fill out a short 2 question survey.

Open the session in the app and click the “Breakout Survey” icon.