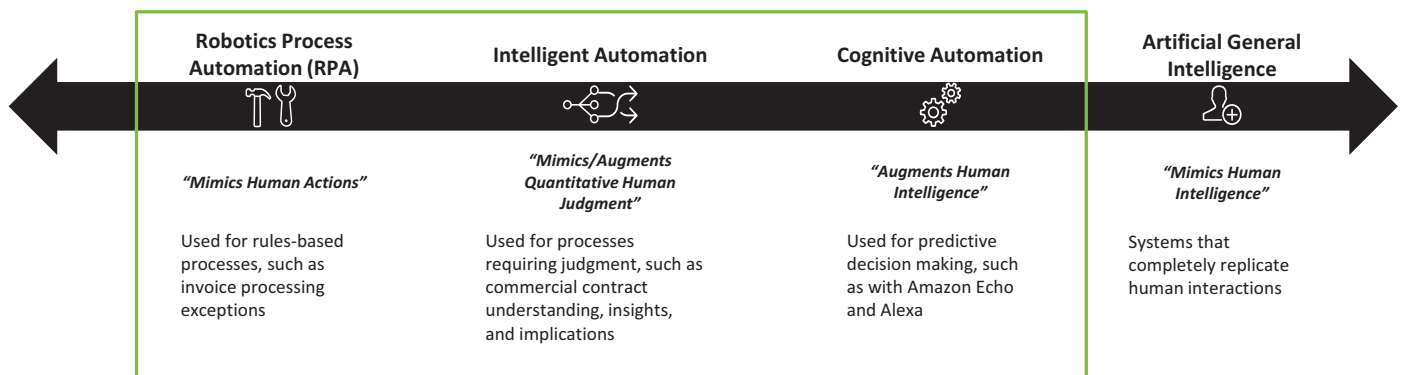




Robotics Process Automation Overview  
 Dave Yarin, Principal, Deloitte  
 HFMA MA/RI Chapter  
 Annual Compliance Update

December 13, 2018




## THE AUTOMATION CONTINUUM






Automation is an evolving technology whose application can be extremely powerful. When coupled with the right process and the right level of human intervention, it has the power to transform organizations

# DISPELLING MYTHS ABOUT RPA

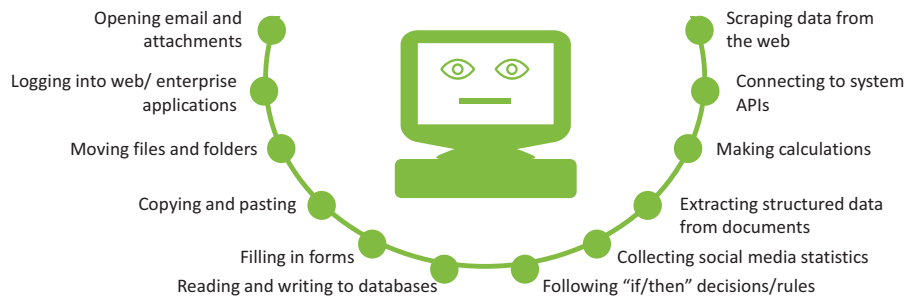
## RPA IS...

-  Computer-coded software
-  Programs that replace humans performing repetitive rules-based tasks
-  Cross-functional and cross-application macros

## RPA IS NOT...

-  Walking, talking auto-bots
-  Physically existing machines processing paper
-  Artificial intelligence or voice recognition and reply software

## What RPA can do



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# OUTCOMES OF RPA



Re-engineer core processes while automating the function



Profit generated becomes less dependent on ability to scale labor



Rapidly scale up or down depending on the nature of the business issue



Process owners elevated to process transformation leaders and robot designers



15 – 90% cost reduction opportunity

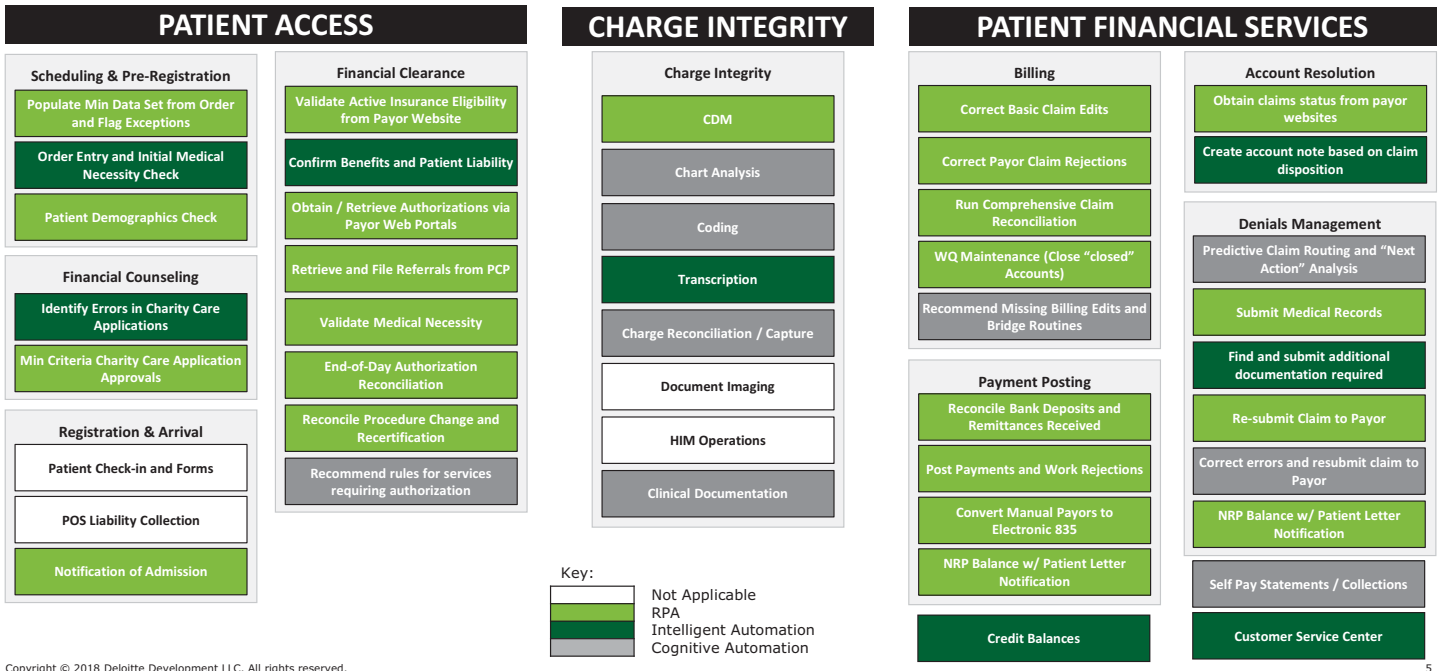
RPA has brought innovation across banking, retail, manufacturing, supply chain, and finance. RPA can empower healthcare provider operations to rapidly improve process quality, efficiency, and disrupt their cost structure

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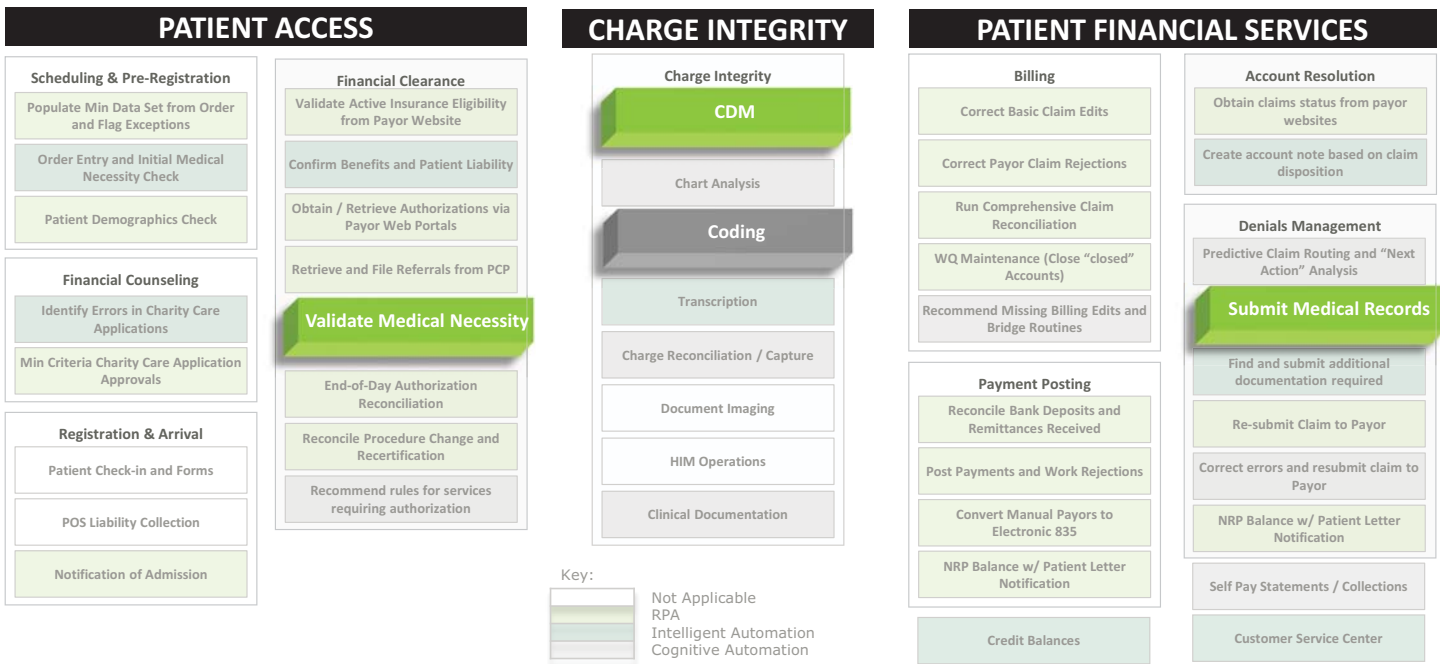
# EXAMPLE REVENUE CYCLE AND COMPLIANCE RPA USE CASES

Automation has the potential to **disrupt the revenue cycle** and related compliance activities by **removing over 20% of the existing cost base**, allowing health systems to **reallocate staff to more value add work**



# EXAMPLE REVENUE CYCLE AND COMPLIANCE RPA USE CASES

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# CLINICAL AND NON-CLINICAL PROCESS EXAMPLES

## Clinical Departments

Cardiovascular Services
Clinical Resource Management
Education Services
Emergency Services
Imaging Services
Laboratory Services
Medical Staff Services
Nursing / Patient Care Services
Patient Transport
Pharmacy
Rehabilitation Services
Respiratory Services
Surgical Services

## Process Examples

- Diagnostic scheduling facilitation
- Quality reporting automation
- Case management data consolidation
- **Continuing education audits**
- Payroll hours reconciliation
- ER throughput analysis
- Imaging scheduling facilitation
- Imaging utilization analysis
- Lab reporting automation
- **Credential verification processing**
- Patient admissions history collection
- Bed assignment facilitation
- Transport dispatch facilitation
- Pharmacy reporting automation
- Patient follow-up facilitation
- Patient scheduling facilitation
- Missed dose reporting automation
- Surgery scheduling facilitation
- OR throughput analysis

## Non-Clinical Departments

Revenue Cycle
Supply Chain
Finance and Accounting
Facilities Operations
Food & Nutrition Services
Human Resources
Information Technology
Linen Services
Community Outreach
Security & Safety
Strategic Planning, Marketing & Community Relations
Environmental Services
Telecommunications

## Process Examples

- **Account resolution/follow-up**
- **Medical record denials correction**
- Item master data entry
- Asset management maintenance
- **Asset management reconciliation**
- Reporting package assembly
- Biomedical equipment data collection
- Maintenance and repair processing
- Cafeteria reporting automation
- **Employee license verification**
- IT security request processing
- Help desk support facilitation
- Laundry processing reporting
- Foundation fund monitoring
- Volunteer reporting and outreach
- Facility security request processing
- Social media data collection
- Patient satisfaction analysis
- Cleaning dispatch facilitation
- Device utilization reporting
- Inactive line monitoring

# RPA EXAMPLE USE CASES

**Revenue Cycle, Supply Chain and Finance provide the greatest opportunities** for automation due to the manual characteristics of the work as well as their existing cost structure

### Revenue Cycle:

#### Financial Clearance

- 1 Log on to patient accounting system or bolt-on tool and access financial clearance workqueue
- 2 Identify patient requiring financial clearance activity and determine primary insurance carrier
- 3 Open internet browser and access primary insurance carrier website's eligibility verification portal
- 4 Search for patient name in insurance portal based on a defined set of search criteria
- 5 Access relevant eligibility and benefit information; copy information and enter it back into patient account system notes

### Procure2Pay:

#### Invoice Receipt & Transfer

- 1 Receive invoice via shared email inbox and open corresponding attachment
- 2 Upload invoice into ERP software
- 3 Search for purchase order number associated with the uploaded invoice
- 4 If no purchase order exists, create header and appropriate GL coding in ERP system that provides parameters for payment
- 5 Create and format daily CSV file and generate email out to team

### Finance:

#### Intercompany Reconciliation

- 1 Run intercompany account reports for all entities
- 2 Calculate the variance that exists between business unit accounts
- 3 For all non-zero entries, pull detailed transaction reports and determine which entry caused variance and why
- 4 Create final reconciliation report of all non-zero entries with the corresponding detailed files
- 5 Send report and relevant supporting information to appropriate individual for review

# EXAMPLES OF AUTOMATION IN HEALTHCARE

1

National not-for-profit health system \$15.9 B in operating revenues

- RPA project to build **3 automations** within their **Accounts Payable Department**
  - Invoice Receipt & Transfer
  - Non-PO Approver Setup
  - Vendor Request on Invoice Setup
- Expected timeline to production is **10 weeks**
- Potential for further automations within accounting, finance and managed care contracting
- Expected net **NPV of \$2M** in Year 5, with immediate positive ROI

2

Community based for-profit integrated health care organization

- Focusing on the **Financial Clearance area** of the client's revenue cycle
- RPA technologies will enhance the **verification** of patient **eligibility, benefits,** and obtainment of **authorization** and **referrals** prior to service
- Potential to further integrate RPA technologies into the **billing and collection processes**
- Expected net **NPV of \$6.5M** in Year 5, for both front and back end RPA components

3

Large not-for-profit regional health system in the South

- Completed RPA pilot in 2016 to build **4 automations** across 3 shared services departments
  - Finance:** Asset Management Data Entry & Reconciliation
  - HR:** License Verification
  - Supply Chain:** Item Master Data Entry
- Net benefits estimated at **4 FTEs** and **\$270K annual cost reduction**
- Developed high-level **business case and inventory of future RPA opportunities**

## RPA Demonstration PEPPER Reporting

# David M. Yarin, MBA

## Principal

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David Yarin is a Principal with Deloitte & Touche LLP and brings more than 20 years of healthcare industry, consulting and project management experience. He has significant experience in leading and managing multiple types of engagements for healthcare provider, payer and life sciences organizations, including:

- Compliance program development, assessment and improvement; Interim Compliance Officer
- Due diligence
- Litigation support and expert witness
- Board advisory/Independent Board Advisor
- Independent review organization (IRO)

Prior to his consulting career, Dave worked as a Physician Group Practice Administrator for multi-specialty groups based in academic medical centers, including Brigham and Women's Hospital in Boston, Massachusetts.

Dave has spoken and published on numerous occasions on regulatory compliance, including "Tenet's CIA: Takeaways for Compliance Program Effectiveness" at the 2012 HCCA Compliance Institute, "Staying on Top of Increased Compliance Scrutiny" at the March 2010 Outstanding Directors Exchange (ODX) conference; multiple Healthcare Compliance Association (HCCA) national and regional meetings, "The Board of Directors' Role in Overseeing Compliance Program Effectiveness" in HCCA's Compliance Today's Feature Focus Article for October 2009, "Detecting and Preventing Drug Theft" in Hospitals & Health Networks March 2006 publication, and the introduction to "FDAnews Pharmaceutical and Medical Device Settlement Trends."

As part of his consulting experience, Dave has served as a Board advisor on multiple high-profile matters, including:

- Dave served as the independent advisor to a national health system's Board of Directors, as required by a Corporate Integrity Agreement (CIA) with the Office of Inspector General (OIG). Dave was the first individual to serve in this capacity. As part of his role, Dave led a comprehensive compliance program review performed annually for the five-year term of the CIA. Review areas included but were not limited to billing and coding activities, investigation of hotline calls and reported matters, compliance training and education activities, and performance of an employee survey to measure retention and understanding of compliance program information. The results of the review were reported to the Board, Senior Management, and to the OIG. In addition, the review supported the Board's certification of Compliance Program effectiveness as required by their CIA.
- Dave served as an independent advisor to a pharmaceutical company's Board of Directors, as well as leading an engagement to prepare for its Independent Review Organization (IRO) testing required by their CIA. While the independent advisor role was not required by the CIA, the Board voluntarily retained Dave to perform an annual compliance program review, the results of which were reported to the Board, Senior Management, and to the Office of Inspector General (OIG). Review areas included but were not limited to marketing and promotional functions, call plan development, handling and distribution of samples, medical liaison activities, investigation of hotline calls and reported matters, and compliance training and education activities. In addition, the review supported the Board's certification of Compliance Program effectiveness as required by their CIA.

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