



Healthcare Virtual Symposium 2020: Foundational Changes to Shape our Future

# Your Journey to Automation Starts with These Four “Must-Do’s”

Colleen Hall  
Brian Sanderson

Feb. 27, 2020

# Agenda

1 **Background of your Speakers**

2 **Automation Wild Wild West**

3 **Let's be Clear**

4 **Must Do's and Client Stories**

5 **Bonus Thoughts**



**Polling Questions Throughout**

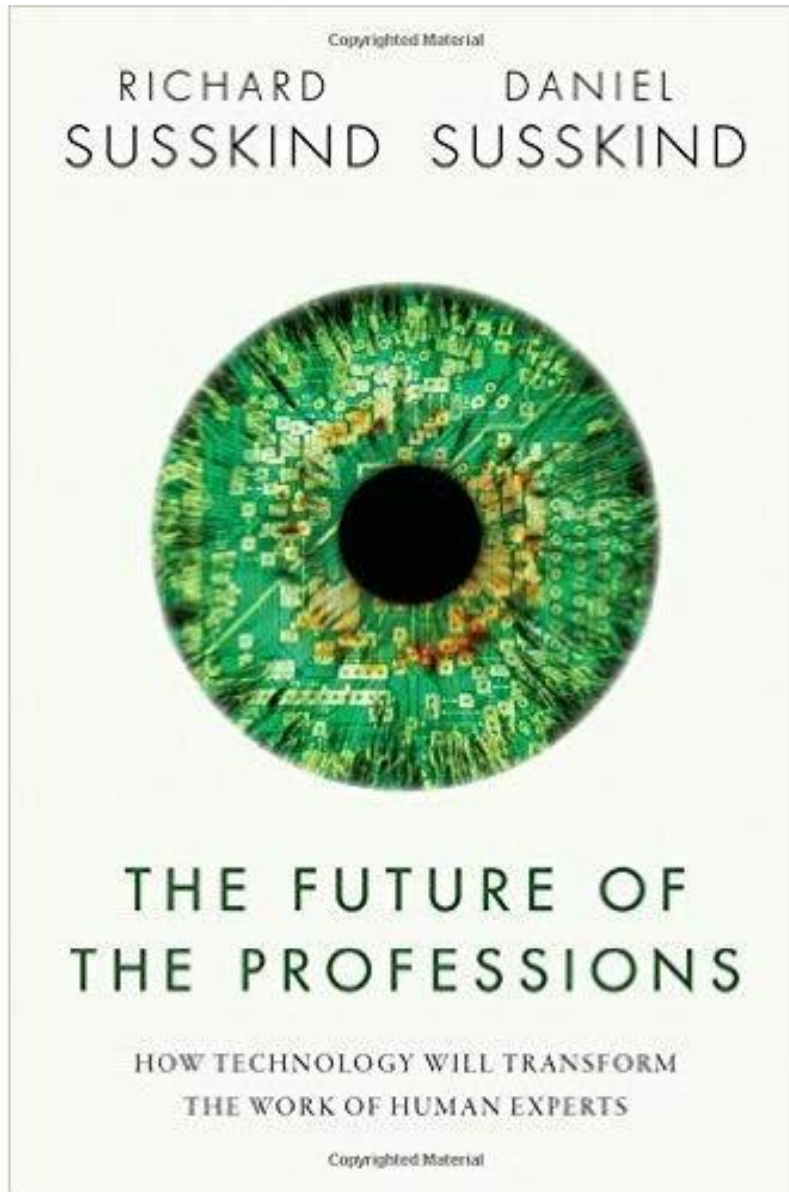
# Presenters



**Colleen Hall**  
HC Consulting Revenue Cycle  
Practice Leader  
+1 615 515 3813  
colleen.hall@crowe.com



**Brian Sanderson**  
Healthcare Industry Vertical Leader  
+1 630 574 1607  
brian.sanderson@crowe.com



This book predicts the decline of today's professions and introduces the people and systems that will replace them.

In an internet-enhanced society, according to Richard Susskind and Daniel Susskind, we will **neither need nor want** doctors, teachers, accountants, architects, the clergy, consultants, lawyers, and many others, to work as they did in the 20th century.

Does anyone think  
that the revenue cycle  
of the future will  
**NOT**  
be automated ...?



### Tom Hardie: The promise of greater automation in healthcare

May 16, 2019

You have 2 free articles remaining this month.

UPGRADE MEM

How To | Artificial Intelligence



### A CFO's Guide to AI Strategy

Jan 22, 2019

Artificial intelligence (AI) investments can provide significant ROI for healthcare organizations.

### Financial Management



### 4 thoughts on how AI and automation could transform the revenue cycle

Kelly Gooch - Thursday, May 4th, 2017 Print | Email

SHARE Tweet

S&P 500 ▲ 3194.45 0.06%    Nasdaq ▲ 8840.94 0.20%    U.S. 10 Yr ▼ -4/32 Yield 1.928%    Crude Oil ▲ 61.16 0.36%

# THE WALL STREET JOURNAL.

Home World U.S. Politics Economy **Business** Tech Markets Opinion Life & Arts Real Estate WSJ Magazine

## CFO JOURNAL.

### Using Technology to Boost Health Care's Back Office

Artificial intelligence and robotic process automation can help hospitals and health plans improve how the back-office staff operates and the customer experience.

Search CFO Journal

Market Data

STOCKS

DJIA S&P 500

OSF HEALTHCARE

Innovation Women's Health Preventive Health Patient Stories All Topics

More and more, we're going to see automation opportunities ... machine learning, artificial intelligence, robotic process automation and other techniques like that to automate the work. [CLICK TO TWEET](#)

### Four the future: Going beyond the clinical breakthroughs

June 13, 2019 - Ken Harris

Facebook Twitter LinkedIn Email Pinterest + More 133

A GARTNER REPORT

## Robotic automation and the future of work

Robotic process automation (RPA) enables organizations to effectively automate tasks, streamline processes, increase employee productivity, and ultimately deliver satisfying customer experiences.

# AI and Automation penetration in Healthcare is low

AI Index Relatively low Relatively high

	Overall AI index	MGI Digitization Index <sup>1</sup>	Assets			Usage						Labor	
			Depth of AI technologies	AI spend	Supporting digital assets	Product development	Operations	Supply chain and distribution	Customer experience	Financial and general management	Workforce management	Exposure to AI in workforce	AI resources per worker
High tech and telecommunications	Dark Green	Dark Blue	Dark Green	Dark Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Automotive and assembly	Dark Green	Light Blue	Dark Green	Light Green	Light Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Financial services	Dark Green	Dark Blue	Light Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Resources and utilities	Dark Green	Light Blue	Dark Green	Light Green	Dark Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Media and entertainment	Dark Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Consumer packaged goods	Light Green	Light Blue	Dark Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Transportation and logistics	Light Green	Light Blue	Light Green	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Retail	Light Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Education	Light Green	Light Blue	Light Green	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Professional services	Light Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Health care	Light Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Building materials and construction	Light Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
Travel and tourism	Light Green	Light Blue	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green



# Polling Question #1

1. What area do you think will benefit the most from Automation?

- A. Clinical Services
- B. Finance Department
- C. Revenue Cycle
- D. Quality



# Healthcare Trends in Automation

- Health systems are establishing Automation Departments
- RPA firms are stirring interest, confusion and unmet promises
- Contrary charters – focus on labor reduction, but Board doesn't want layoffs, plus the transition to improved patient experience<sup>6</sup>




# What Benefits Can Hospitals Get from Healthcare Automation?

Posted by **Infini-O** on Sep 10, 2018 10:56:18 PM

Topics: **Automation, Healthcare**

 Share

 Tweet

 Share

 Email

 Share

- 1. Overall Savings on Time, Labor and Cost**
- 2. Improvement on Quality and Consistency**
- 3. Better for Population Health**
- 4. Access to Insights Given by Data**

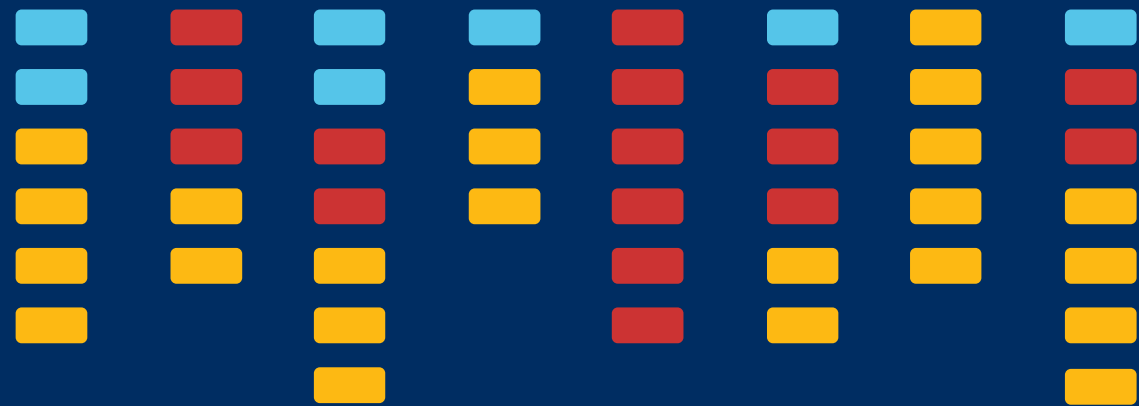
**Vague ... Vague ... Vague**

# Workforce implications

PRESENT



Legend: ■ - Human powered    ■ - Human and Digital    ■ - Digital powered



FUTURE

# Summary – Automation Standards



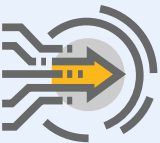
## Read

Read documents and transform into electronic data or read for the presence of specific content.



## Apply

Apply rules to situations in a linear fashion based upon a rules library or expert system structure.



## Route

Route information or action steps to human as part of a human-machine collaboration.



## Lookup

Lookup information or reference codes automatically, avoiding duplicative tasks and errors in data processing.



## Scrape

Scrape screens of third-party solutions as necessary to collect data, retrieve values, or otherwise interact with applications.



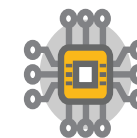
## Detect

Detect anomalies or suspicious transactions, charges, or other events based on intelligent models trained across industry data sets.



## Send

Send emails, texts, or other communications in support of a required action or work step.



## Calculate

Calculate values, measures, or data values based upon rules dictated by expert systems and/or rules libraries.



## Enter

Enter data into internal / external systems to complete steps and maintain data integrity in systems of record.



## Decide

Make decisions as part of a cognitive automation step based on available or historic data using machine learning techniques.



## Respond

Respond directly to an input or dialog with a user to provide an answer or additional insight.



## Predict

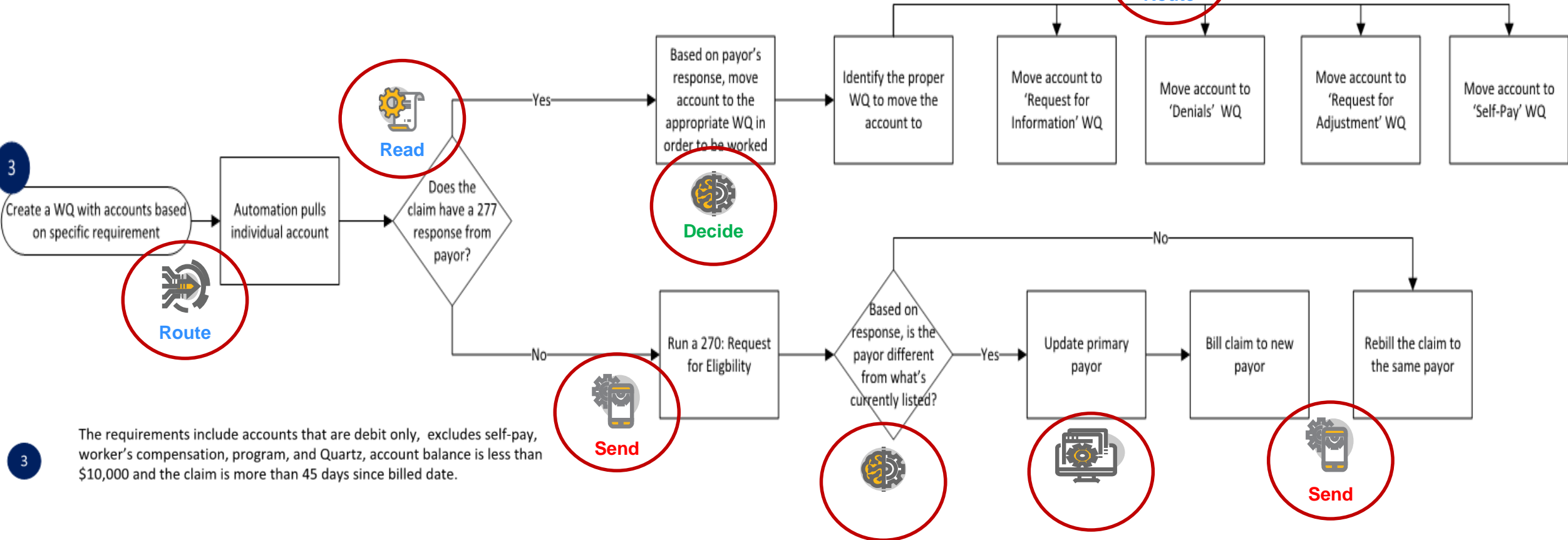
Predict results, values, or outcomes based on available data and patterns identified within the data.

# Account Follow-up – Claim Status

Type: Automation as a Service (AaaS)

## Example of Future State Automation

No Payment / No Denial




The requirements include accounts that are debit only, excludes self-pay, worker's compensation, program, and Quartz, account balance is less than \$10,000 and the claim is more than 45 days since billed date.

## Polling Question #2

1. Which types of organizations will take the lead re: integrating automation into healthcare?

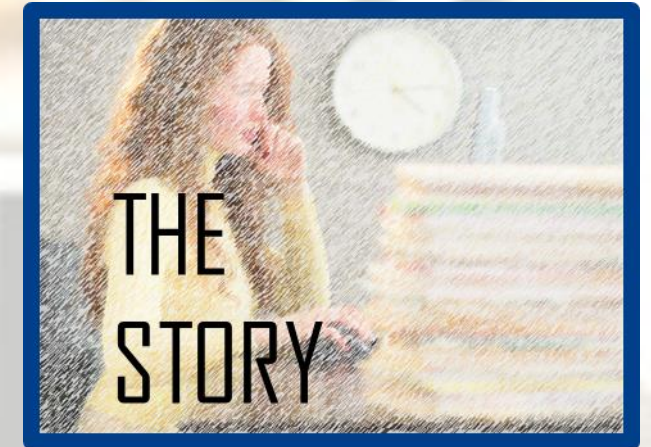
- A. Academic Medical Centers (e.g. BJC)
- B. Big data organizations (e.g. Google)
- C. Consulting firms (e.g. Crowe)
- D. Technology firms (e.g. IBM)



# Four Must-Do's on your Journey to Automation

## Get your craft right first.

- Know your WHY – avoid automation for the sake of automating.
- Pick your priorities – not everything will be able to be automated. Be deliberate.
- Take time to optimize FIRST. Garbage in really will result in Garbage out.
- Be realistic. Automating takes time. Spend the appropriate time on getting things right.





# Have a Command Center mentality

– not a “bot” mentality

- “Operational” command centers are underway in analytics, equipment monitoring, telemetry and supply chain (“incident control”)
- “Clinical” command centers are in development, particularly around population health
- Data access and data structure now allows for centralized “dashboard” management – think Revenue Integrity



## Polling Question #3

1. Why is rapid adoption of automation such a challenge?

- A. Costs too much/not enough ROI
- B. People are afraid of it
- C. People don't understand it
- D. The technology hasn't matured enough

# You need a new organizational model – managing machines requires upskilling

- Key transition will be functional performance management vs. labor productivity management (hard skills vs. soft skills)
- “Engineering” mindset will become the prevalent hiring criteria for the “employee journey” to success
- 55% of revenue cycle employees already know  
– “I need to learn new technologies to remain competitive in my skillset”



# There is more value in total – not just labor efficiency ...

- Net revenue will increase
- Cost reductions will be realized
- Redeployment will be valuable
- Quality and consistency will increase




## Polling Question #4

1. What % of labor hours in the revenue cycle will be replaced by automation in 5 years?

- A. 10%
- B. 20%
- C. 40%
- D. 50%+

The background features a dark teal color with numerous thin, wavy lines that create a sense of motion and depth. In the top right corner, there is a large, light teal triangular shape. In the bottom left corner, there is a bright yellow triangular shape. In the bottom right corner, there is a white triangular shape. The text "Bonus Ideas" is centered in the middle of the image in a white, sans-serif font.

# Bonus Ideas



Choose the best  
path for  
automation – not  
the easiest

Network  
orchestrate your  
way to success –  
you're not the  
only one  
attempting this



# Questions





# Thank you.

Colleen Hall  
+1 615 515 3813  
colleen.hall@crowe.com

Brian Sanderson  
+1 630 574 1607  
brian.sanderson@crowe.com