

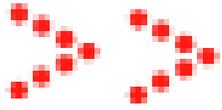




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For more details, check out the Quick Tip post on [Connect.ACUA.org](https://connect.acua.org)

Your Higher Education Auditing Connection

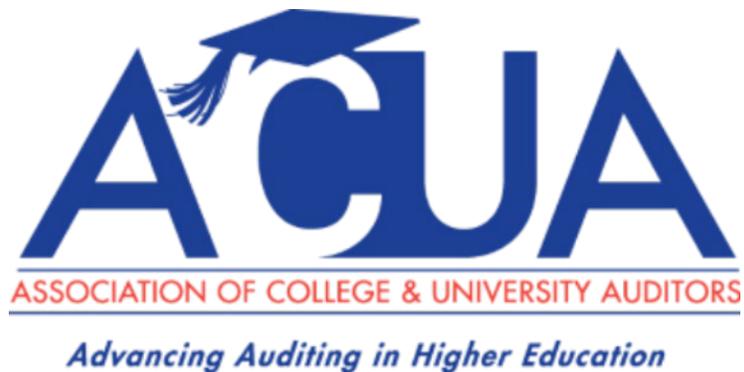


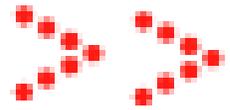
Coming Soon!

**New ACUA Kick Starter Scheduled
for Release**

August 15th: Export Controls

stay tuned at www.ACUA.org

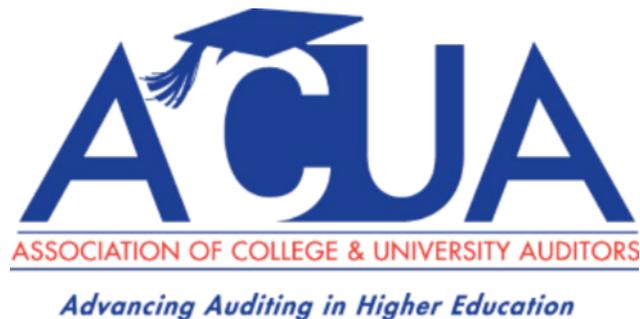


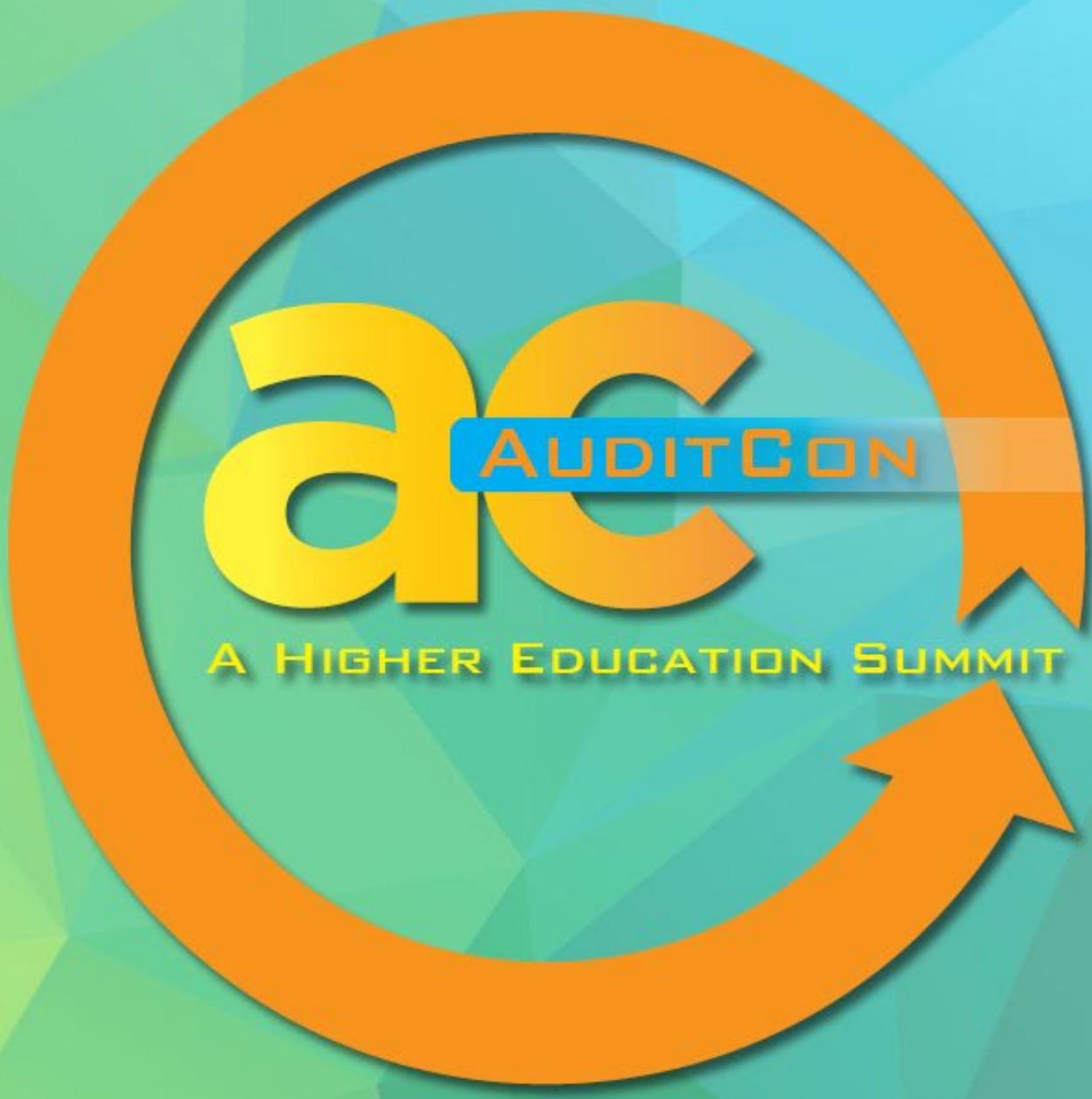


New Kick Starter Available!

Classroom Space Utilization

Download today in the members-only Audit Tools section of www.ACUA.org





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AUDITCON

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September 14-17, 2020

VIRTUAL EDITION

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Digital transformation in higher education

JULY 28, 2020



INTRODUCTIONS

Today's webinar moderator



Amy Hughes
ACUA Virtual Learning Committee
Director of Internal Audit
Michigan Technological University



Today's presenters



Mike Cullen

Director, Higher Education IT and Cybersecurity

mike.cullen@bakertilly.com



Claudio Garcia

Director, Baker Tilly Digital

claudio.garcia@bakertilly.com



Saleem Khan

Senior Manager, IT Audit

saleem.a.khan@emory.edu

DIGITAL TRANSFORMATION

Agenda

- Learning objectives
- Introductions
- Intelligent automation landscape
- Compelling use cases for higher ed
- Auditing automation
- Questions?





DIGITAL TRANSFORMATION

Learning objectives

1. Discuss how digital transformation may leverage intelligent automation and analytics
2. Identify potential “use case” examples illustrating digital transformation in higher education
3. Develop approaches for assessing digital transformation risks and auditing these technologies

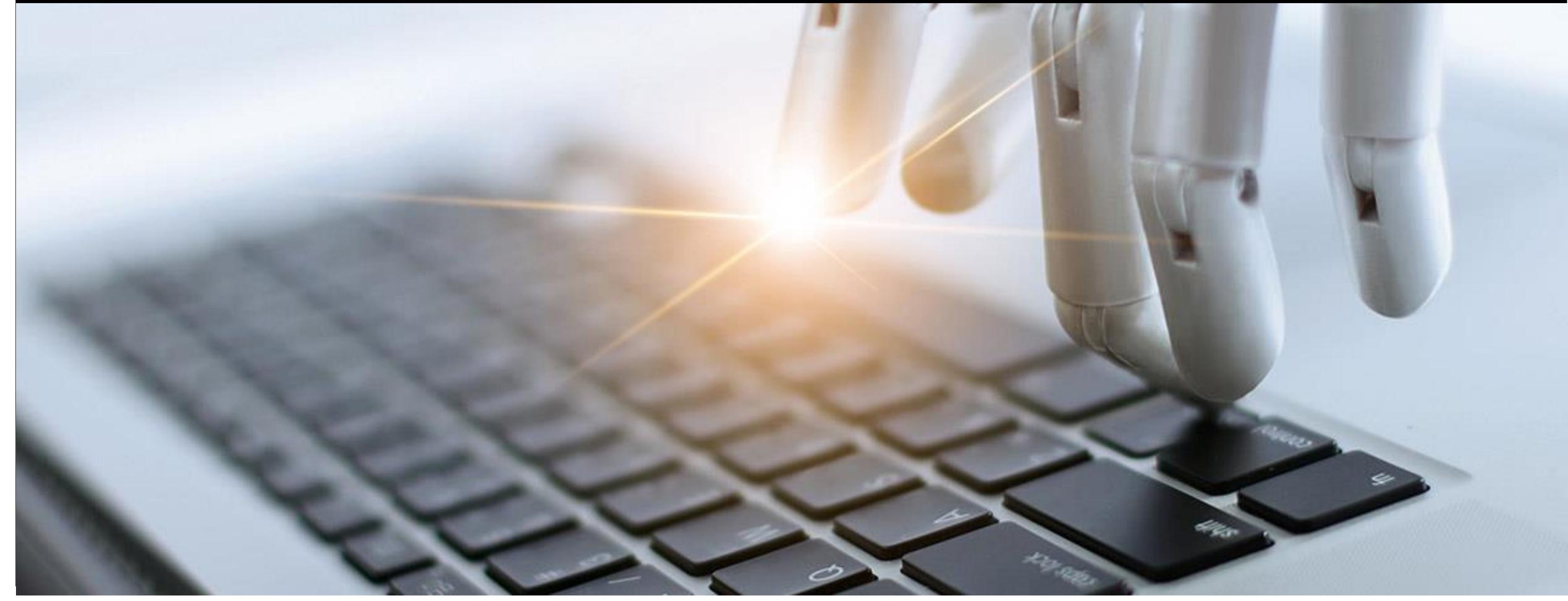
POLLING QUESTION #1

What is your organization's current state of development in terms of implementing intelligent automation?

1. We have already started implementing intelligent automation
2. We are planning to start an automation initiative soon
3. We plan to start an automation initiative in the future
4. We are not sure if we'll start an automation initiative
5. Unsure

Intelligent automation landscape

Process automation technology



INTELLIGENT AUTOMATION LANDSCAPE

Process automation - Defined

“Automation”

- *Broad term describing the replacement of any work task or process by software.*

“Intelligent”

- *Refers to enhancing the automation solution with additional programming or technology tools to enable more sophisticated performance beyond a simple, rules-based (if-then) functionality.*

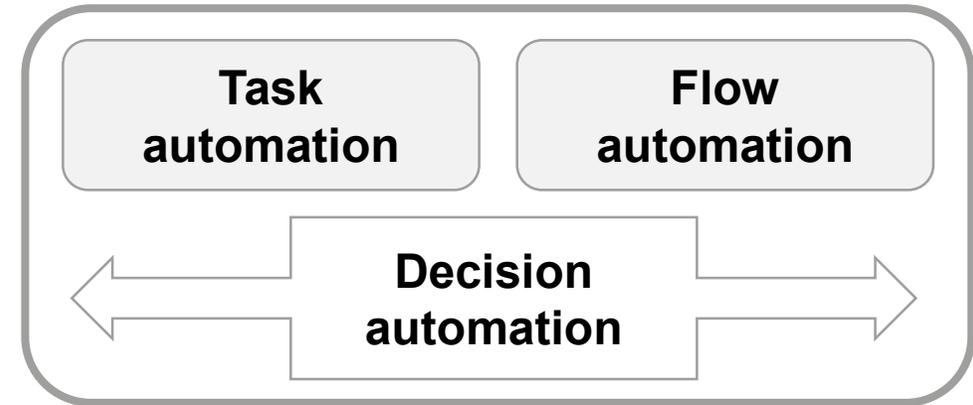
Takeaways:

- Automation is not one technology platform or type of software.
- Intelligent refers to a range of enhanced performance from basic to very advanced.

INTELLIGENT AUTOMATION LANDSCAPE

Intelligent automation - Defined

“Intelligent automation” may be categorized into three types:

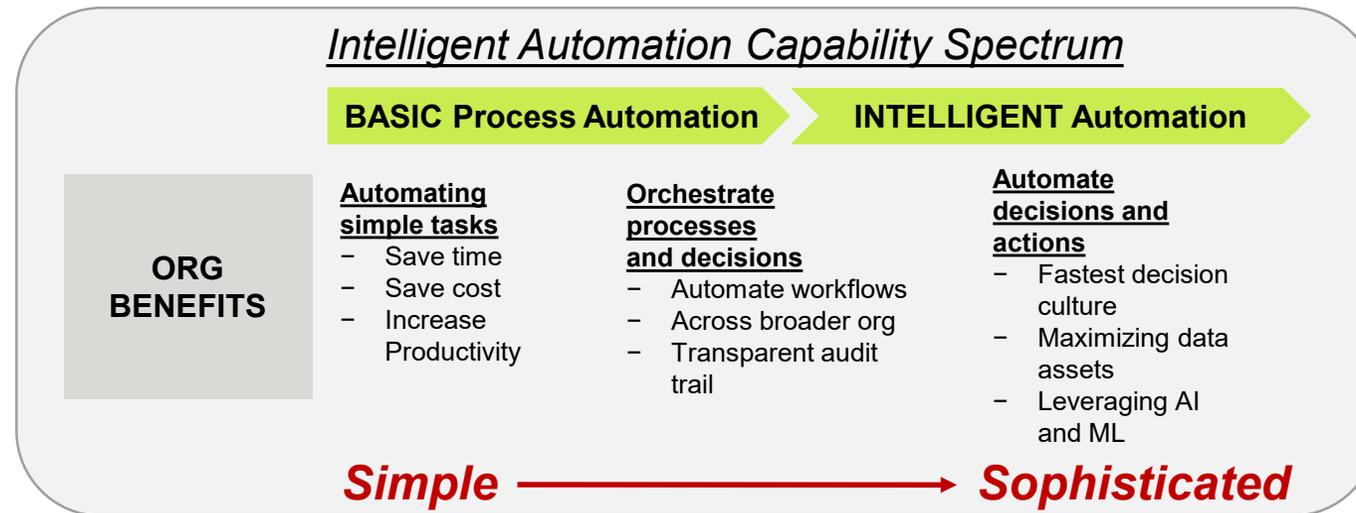


<p><u>TASK:</u> Robotics process automation <i>(Automation anywhere)</i></p>	<p><u>Defined</u></p> <ul style="list-style-type: none"> – Custom development for automation of discrete tasks – Accomplished via robot development and script/code 	<p><u>Benefits</u></p> <ul style="list-style-type: none"> – Save labor time – Save labor cost – Accuracy – Staff morale 	<p><u>Considerations</u></p> <ul style="list-style-type: none"> – Best for single task – Very often misused – Brittle – requires maintenance – Market hype
<p><u>FLOW:</u> Workflow automation <i>(IBM, open source)</i></p>	<p><u>Defined</u></p> <ul style="list-style-type: none"> – Custom development for automation of end to end process – May include RPA 	<p><u>Benefits</u></p> <ul style="list-style-type: none"> – Human to system orchestration – Process performance + control – End-to-end visibility – Audit trail 	<p><u>Considerations</u></p> <ul style="list-style-type: none"> – Ensure effective process is defined – Higher cost vs. task automation
<p><u>DECISION</u> Automation artificial intelligence</p>	<p><u>Defined</u></p> <ul style="list-style-type: none"> – Developing decision logic to automate processes involving cognitive choices – Using data and statistics to drive the decision logic 	<p><u>Benefits</u></p> <ul style="list-style-type: none"> – Externalized business logic – Lower cost to change process 	<p><u>Considerations</u></p> <ul style="list-style-type: none"> – Adds complexity to automation support and architecture

INTELLIGENT AUTOMATION LANDSCAPE

Automation technology maturity curve

Typical client journey tracks from 'Basic' to 'Complex'



Early stage benefits:

- *Increase staff productivity*
- *Save labor cost*
- *Increase process quality and minimize error rates*

Advanced stage benefits:

- *Improve customer experience*
- *Improve operational performance*
- *Manage risk and compliance*
- *Accelerate revenue and profit growth*

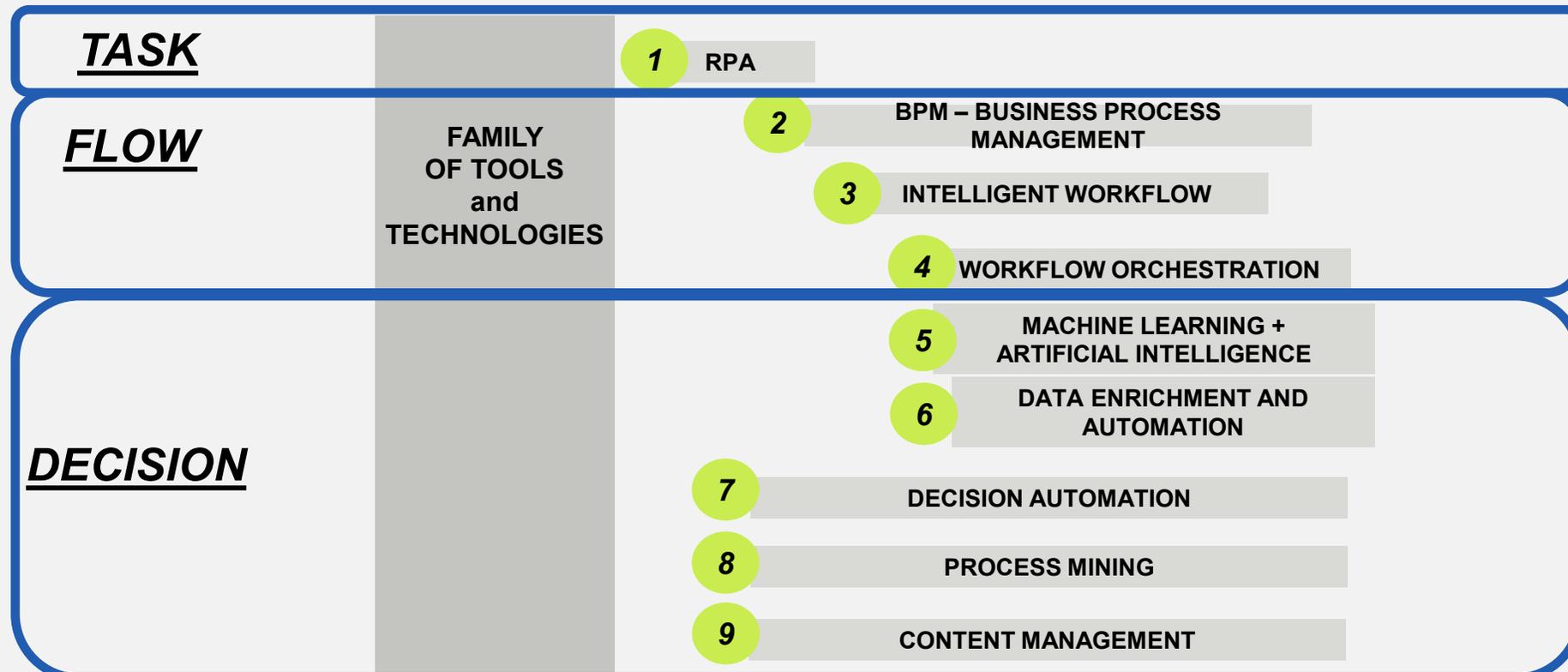
Automation technology maturity curve:

As the org matures, it will leverage a range of automation technologies

Intelligent automation capability spectrum

BASIC precess automation INTELLIGENT automation

Simple —————→ *Sophisticated*



INTELLIGENT AUTOMATION LANDSCAPE

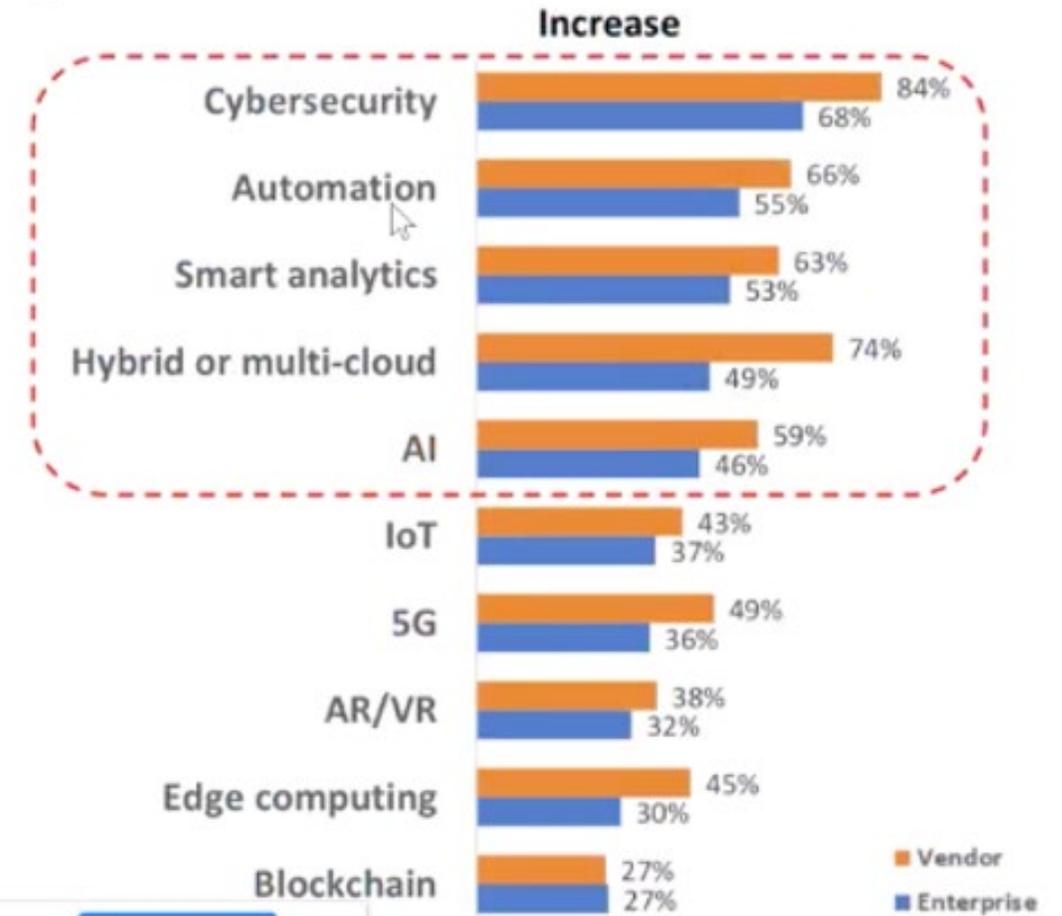
Benefits and challenges

Organizations are planning to dramatically accelerate their investment in intelligent automation

HFS research study (Apr2020):

- 630 Enterprises
- Understanding impact of COVID-19 pandemic on technology investment
- Automation is #2 spending priority

How do you expect COVID-19 to impact your spending for any of the following?
How do you expect COVID-19 to impact your client's spending on any of the following?



INTELLIGENT AUTOMATION LANDSCAPE

Benefits and challenges

In past years, institutions have pursued automation to reduce costs, time, and error rates. Going forward, organizational expectations are evolving (and getting more ambitious).

Saving time and cost still a top benefit, but these factors have entered the top expectations:

- Customer experience
- Improved decision making culture
- Compliance, risk, security, governance

When it comes to investing in **automation**, organizations expect more strategic and long-term outcomes than just efficiency and cost reduction:

EXPECTED BENEFITS FROM AUTOMATION



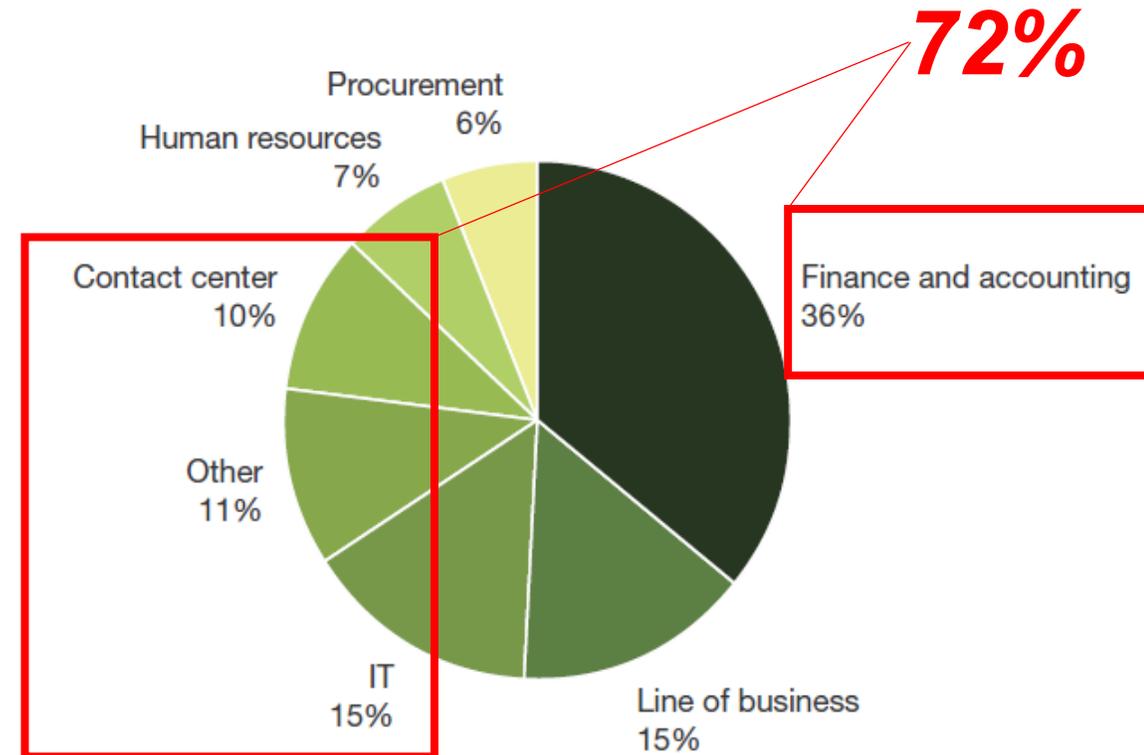
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INTELLIGENT AUTOMATION LANDSCAPE

Benefits and challenges

- Automation implementation is still driven by ‘back office’ business processes.
- ~40% of all use cases are related to Finance and Accounting.
- The other ~40% is related to Human Resources, IT, Procurement, and Contact Centers (Customer Service)

Bot deployments by functional area



Base: 5,800 customer deployments of 25 global robotic process automation service providers
Source: Forrester's Q2 2019 Global Robotic Process Automation Services Forrester Wave™ Online Survey

POLLING QUESTION #2

Does your organization have specific departments or use cases identified for automation?

1. Yes, many use cases
2. Yes, one use case
3. No
4. Unsure

Automation opportunities

Use cases and trends: Higher education institutions



AUTOMATION OPPORTUNITIES

Example institutional functions use cases

Back office

Improve administrative operations

- Remove many manual hours from employee onboarding (HR and IT)
- Reconcile employee IDs across multiple HR systems (HR and IT)

Hybrid

Improve student support operations

- Reconcile FAFSA and other common application questions (Financial aid)
- Create and flag fields on the enrollment portal (Admissions)

Student-facing

Improve student services

- Support increase in application volume with communication tools (Admissions)
- Automate room-booking and approval process for student meetings and events (Student Services)

AUTOMATION OPPORTUNITIES

Data visualization use case

Problem	Institution sustainability (as it relates to financial metrics, student success and institutional performance) relies on the ability to understand data trends and patterns and to proactively manage towards desired outcomes – for the institution and its students.
Solution	DASH Pro enhances the user's the ability to harness an institution's data in order to answer mission critical questions and drive key decisions. After an institution's platform is created, DASH automatically: <ul style="list-style-type: none">— Displays key correlations and drivers of current performance through visualizations— Calculates key performance indicators— Identifies trends in institutional data— Benchmarks against peers and aspirant
Benefits	Helps leadership to understand data correlations, to uncover relationships between decisions across the institution, and to define at what point the data indicates the need to rethink strategy or to modify the resources or operational approaches linked to that strategy.

POLLING QUESTION #3

Will your institution seek partners to assist with the implementation and management of your intelligent automation solution?

1. Yes, very likely to use external partners
2. Undecided, we might use an external partner
3. No, we do not plan to use external partners
4. Unsure

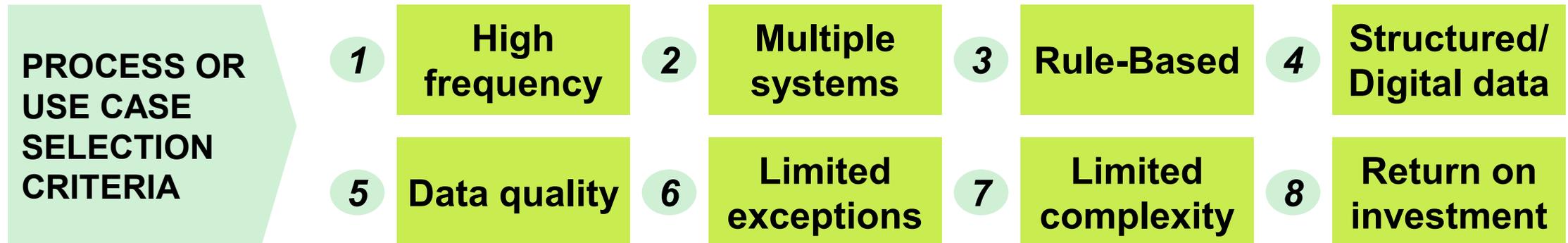
Auditing automation

Best practice and challenges



AUDITING AUTOMATION

Area: use case selection criteria

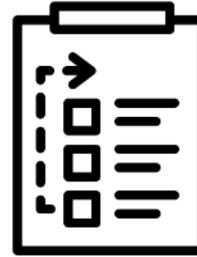


AUDITING AUTOMATION

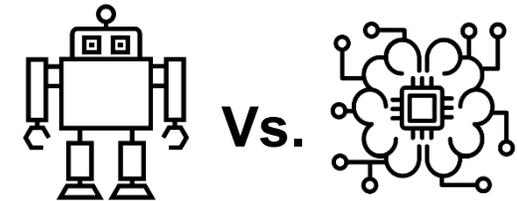
Area: common challenges



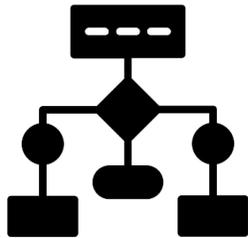
Common goals



Use case identification



**Rule-based or
cognitive**



**Business process
engineering**



Automation anxiety



**Return on investment
and measurement**

AUDITING AUTOMATION

Area: governance

Automation strategy roadmap

- Opportunities prioritized for optimal ROI
- Aligned with your overall IT strategy
- Use cases identified across organization

Define automation budget

- Begin implementation of 'quick wins'
- License, robot development, support
- Internal vs. outsourced assessment

POLLING QUESTION #4

Will your institution be including automation in your internal audit plan either this year or next year?

1. Yes, we are planning to audit automation in this year
2. Yes, we are considering an audit of automation in the future
3. No, we are not planning to audit automation
4. Unsure

THANK YOU



Mike Cullen

Director, Higher Education IT and Cybersecurity

mike.cullen@bakertilly.com



Claudio Garcia

Director, Baker Tilly Digital

claudio.garcia@bakertilly.com



Saleem Khan

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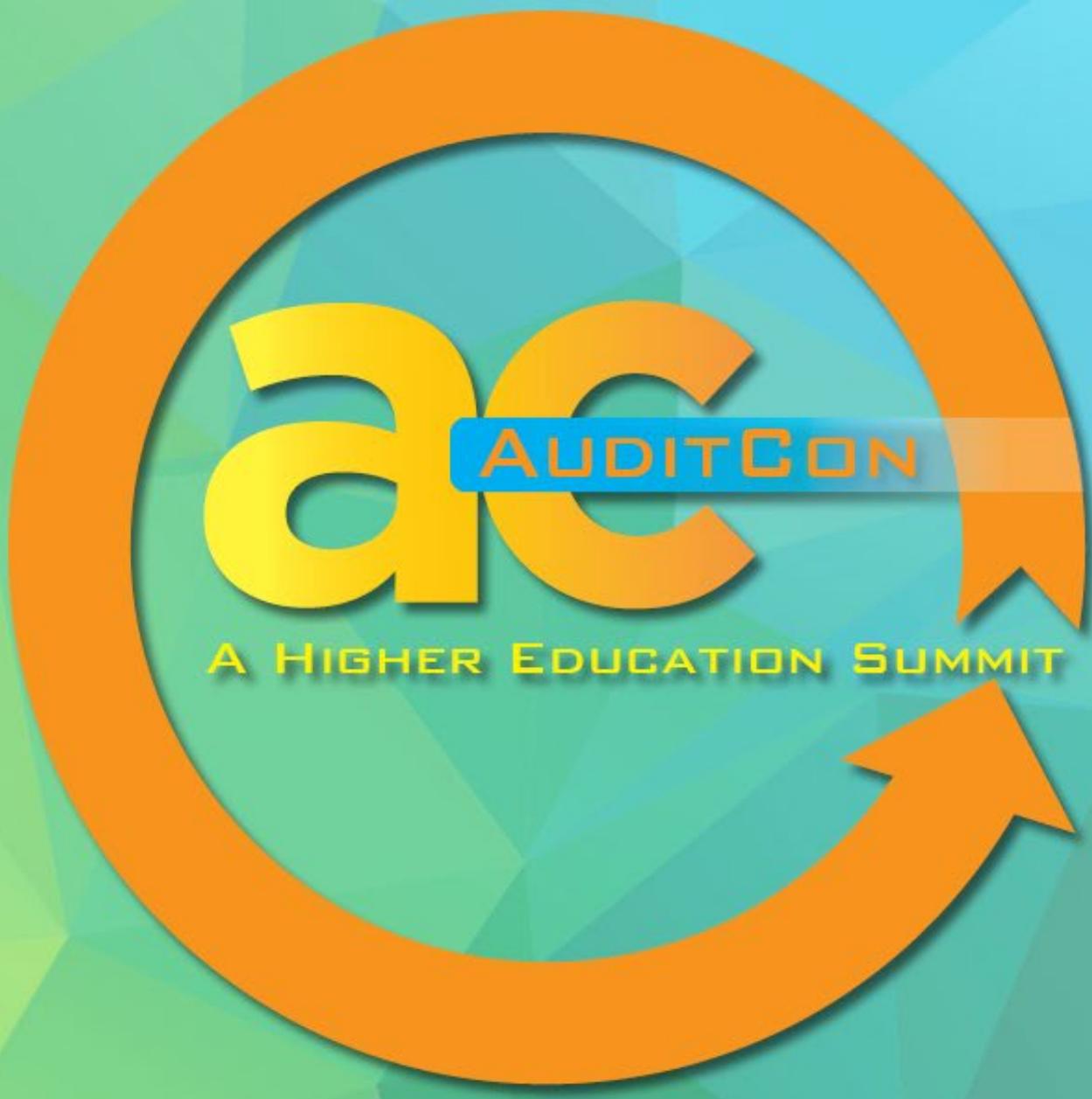
saleem.a.khan@emory.edu



Disclosure

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August 13, 2020

