Tech Trends: What To Know…

AND WHAT YOU CAN DO ABOUT IT.

IMA AKRON CHAPTER MEETING

SEPTEMBER 23, 2020

“Being informed is a virtue. It helps us make better decisions and encourages us to take action..”

- SETH GODIN

Agenda

Introduction

Trends & Tech Overview

"ADAM" – Analytics, Digital, Automation, Mobile

"What Can I Do?"

Wrap Up

INTRODUCTION

Intro - Learning Objectives

Upon completion of this session, participants will be able to:

1. Understand the significant technology trends impacting the accounting profession
2. Understand a framework for monitoring and awareness of technology changes
3. Develop a personal knowledge management (“PKM”) system for use by individuals or their organization
4. Apply the “ALL” (Awareness, Learn, Leverage) process to developing relevant skills

Introduction

- *"Blistering change & widespread disruption"* – recent AICPA email characterizing the current state of the profession!
- The profession has started to adjust…
- But the opportunity keeps coming! (and COVID-19 has accelerated this change…)

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I'm Having déjà vu…

April 2014…

Analytics, social, mobile…

TRENDS & TECH OVERVIEW

Top trends

August 4, 2020

1. Big Data
2. Increased Computing Power
3. Artificial Intelligence
4. Intelligence of Things
5. Autonomous Robots
6. Blockchain


The 6 Biggest Technology Trends In Accounting and Finance

Future Trends: Tech & Business
The way we manage, lead and work in modern organisations is evolving and changing constantly.
Weekly newsletter
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The 6 Biggest Technology Trends In Accounting and Finance

Published on August 4, 2020

Bernard Marr influencer
Internationally best-selling author, keynote speaker, futurist, and strategic business & technology advisor
889 articles

Messaging

The explosion in data that has launched the Fourth Industrial Revolution, a

https://www.linkedin.com/pulse/6-biggest-technology-trends-accounting-finance-bernard-marr

Top trends

July 14, 2020

1. Big Data
2. Artificial Intelligence
3. Cloud Computing
4. RPA
5. Mobile Apps
6. Cybersecurity…
7. Continues…

Big Data, Artificial Intelligence, RPA and Cloud top the list of profession's technology hard trends for 2020 | Business Learning Institute | BLI

blionline.org · by Tom Hood on July 14, 2020

https://blionline.org/big-data-artificial-intelligence-rpa-and-cloud-top-the-list-of-professions-technology-hard-trends-for-2020/

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SOUND FAMILIAR?

Warnings For Our Profession

How much has actually changed?

Capitalize on Disruption?

"Accountants should be preparing now for advanced technologies and other factors that are poised to disrupt the profession."

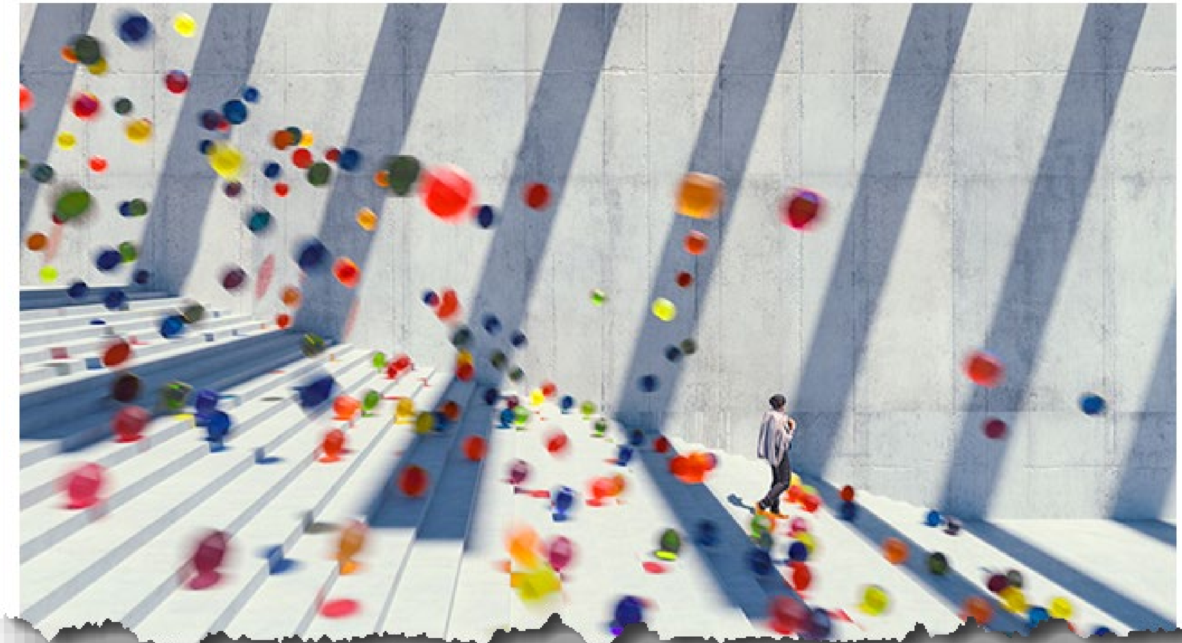
FEATURE / TECHNOLOGY

October 2019 Journal of Accountancy

What CPAs must do to capitalize on disruption

Accountants should be preparing now for advanced technologies and other factors that are poised to disrupt the profession.

By Amy Vetter, CPA/CITP, CGMA
7 hours 27 minutes ago



A Little More Emphasis…

"Accountants ~~should~~ MUST be preparing now for advanced technologies and other factors that are poised to disrupt the profession."

FEATURE / TECHNOLOGY

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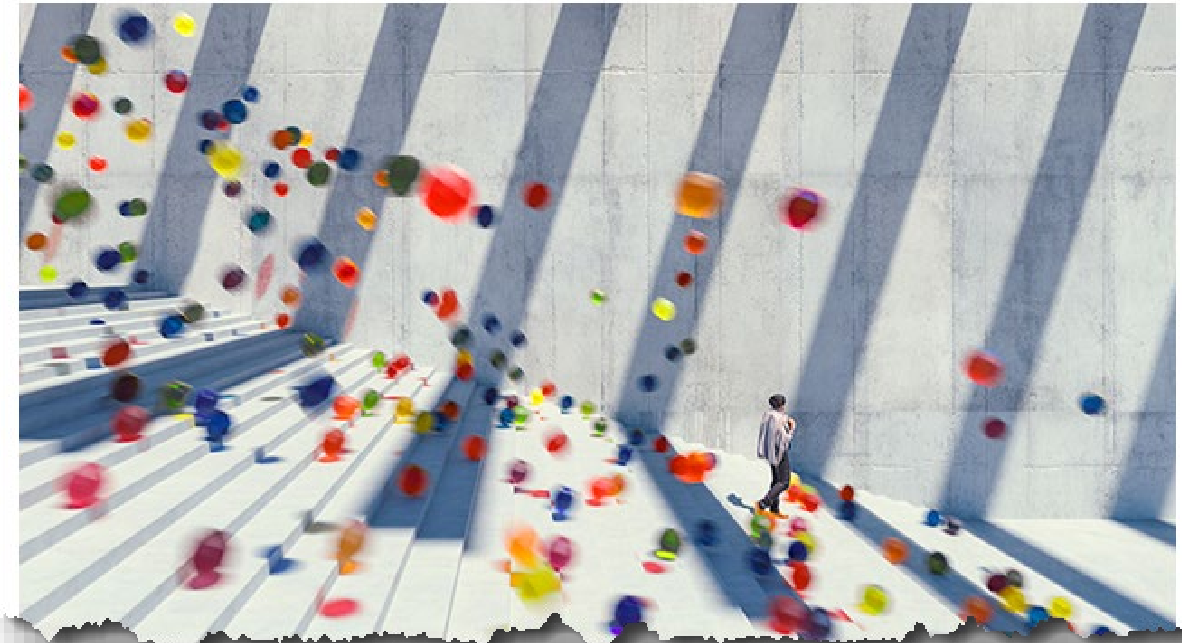
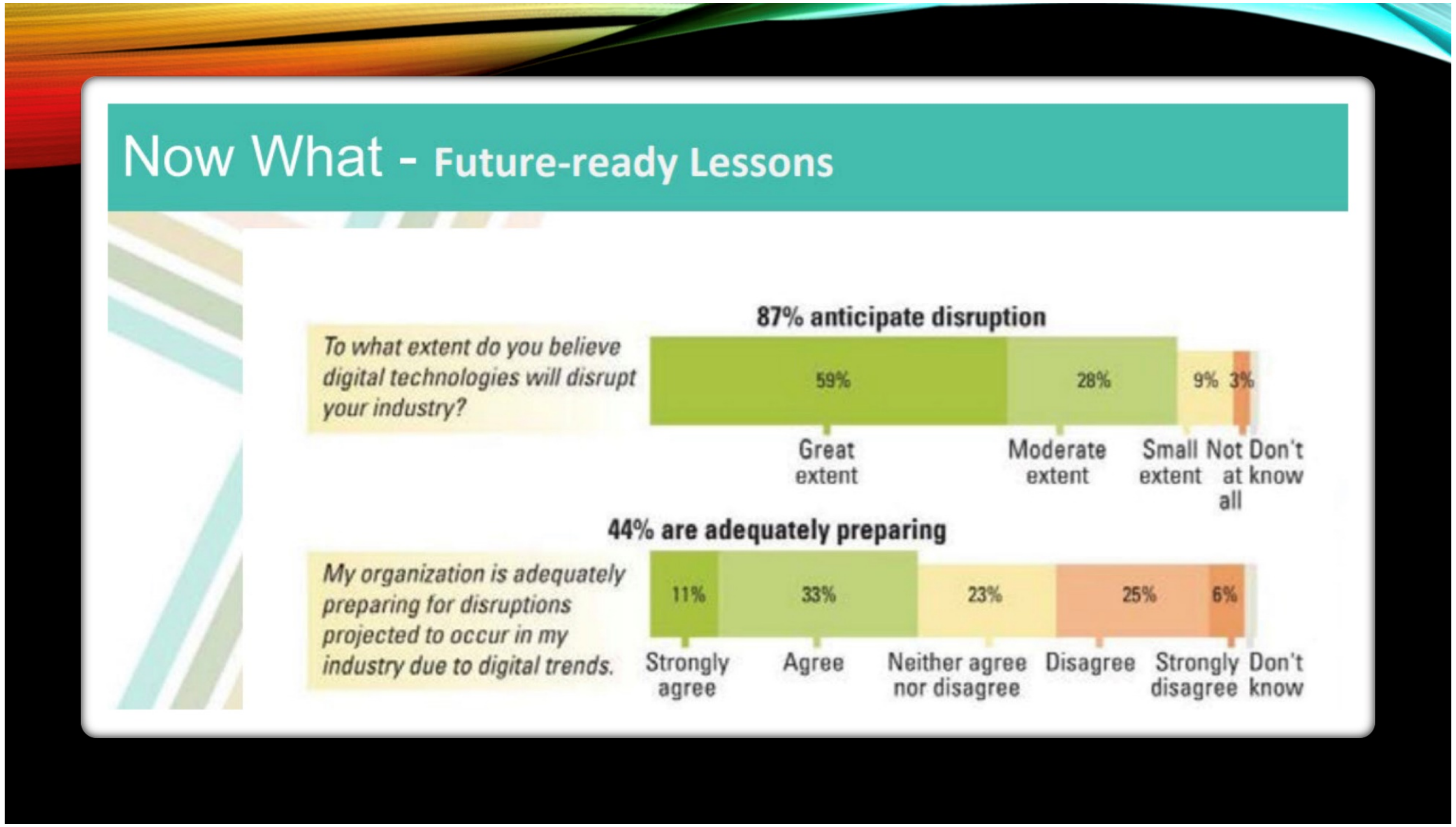


Amy Vetter – JOA Thoughts

- *"…clients may soon be clamoring for advisory services and services we haven't even thought of yet."*
- *"…large enterprises like the Big Four are investing untold time and resources into disruptive processes."*
- *"To prepare for the future, you must step back from the way you do things today and look at your business from a new perspective. You will need to brainstorm new ideas."*
- *"What new service could you launch to make an old service obsolete? Assume in this question that your existing skills and processes are no longer relevant in three to five years."*

Anticipate Disruption?



87% anticipate disruption, but only 44% feel that their organization is adequately preparing…

Top Technology Trends Impacting the Profession
in Next Three Years

1. Artificial intelligence, machine learning, and cognitive computing in audit and tax
2. Big Data and high-speed data analytics
3. Adaptive and predictive cybersecurity
4. Virtualization and automation of processes and services (RPA)
5. Mobile apps for business process innovation
6. Blockchains and cryptocurrency
7. Advanced cloud computing
8. Smarter smartphones and tablets drive mobile process automation
9. Virtualization of desktops, storage, applications, and networking
10. Social business applications

Source: 2018 Top technology Trends – Burrus Research
BLI-MACPA Research over one thousand finance and accounting professionals globally

Tech-Enabled Disruption – Four Broad Categories

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- ❑ ANALYTICS
- ❑ DIGITAL
- ❑ AUTOMATION
- ❑ MOBILE

"ADAM"

“ADAM” Is A Framework

- **A** – “Analytics” – Small Data, Big Data
- **D** – “Digital” – Cloud, Social, Digital workflow, Collaboration, #thinkingdifferently
- **A** – “Automation” – AI, RPA, Blockchain…
- **M** – “Mobile” – Mobile business processes, mobile apps

Polling Question #1

Many technology trends are impacting the accounting profession. The current top trend identified in this presentation is:

1. Artificial Intelligence
2. Robotic process automation (“RPA”)
3. Cloud Computing
4. Data Analytics

"A.D.A.M."

ANALYTICS, DIGITAL, AUTOMATION & MOBILE

Analytics

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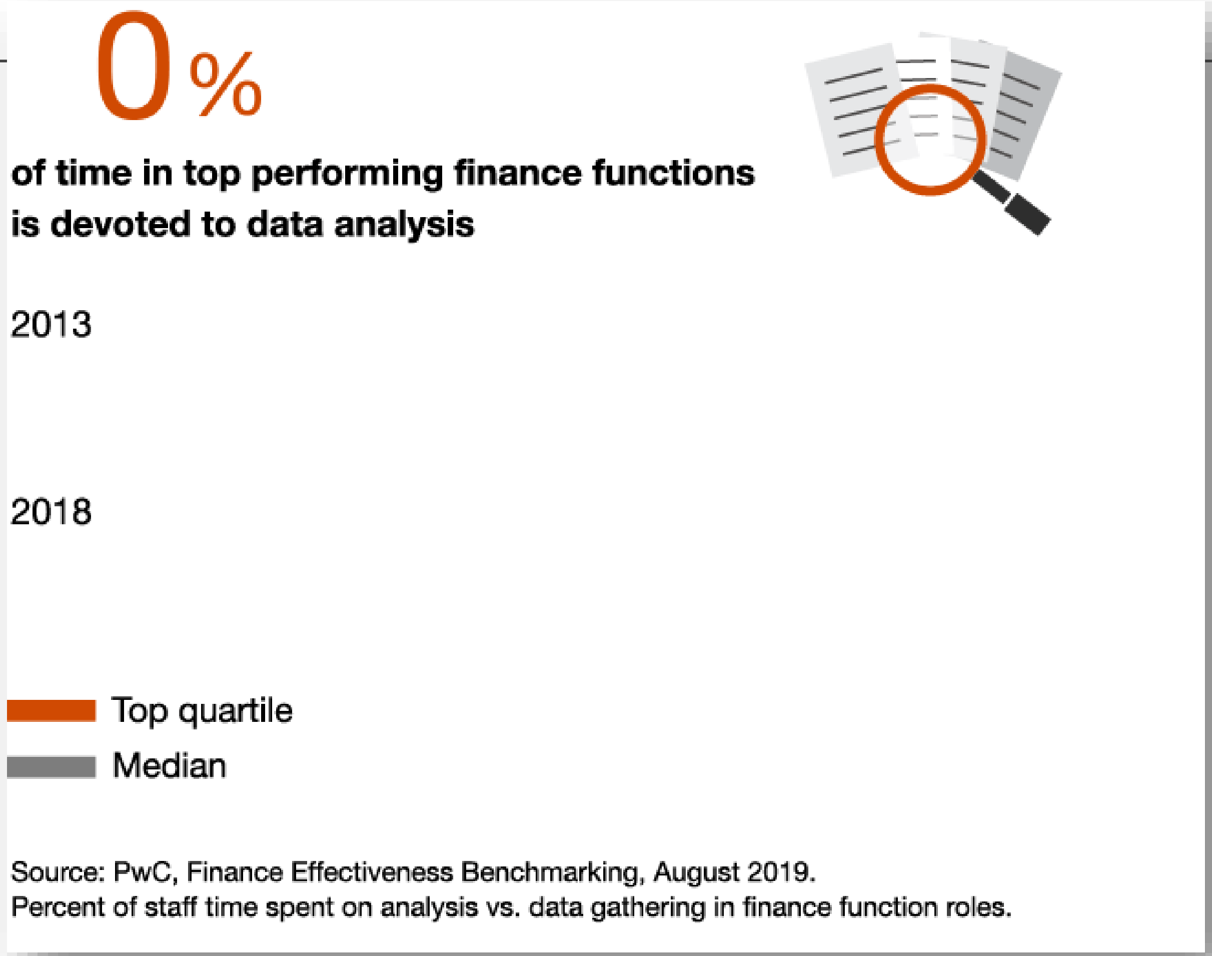
Time Spent on Data



PwC, Finance Effectiveness Benchmarking Study, August 2019

https://www.pwc.com/us/en/services/consulting/finance/finance-effectiveness-benchmark-study/performance.html

Biggest Challenges (MACPA/BLI Survey)?

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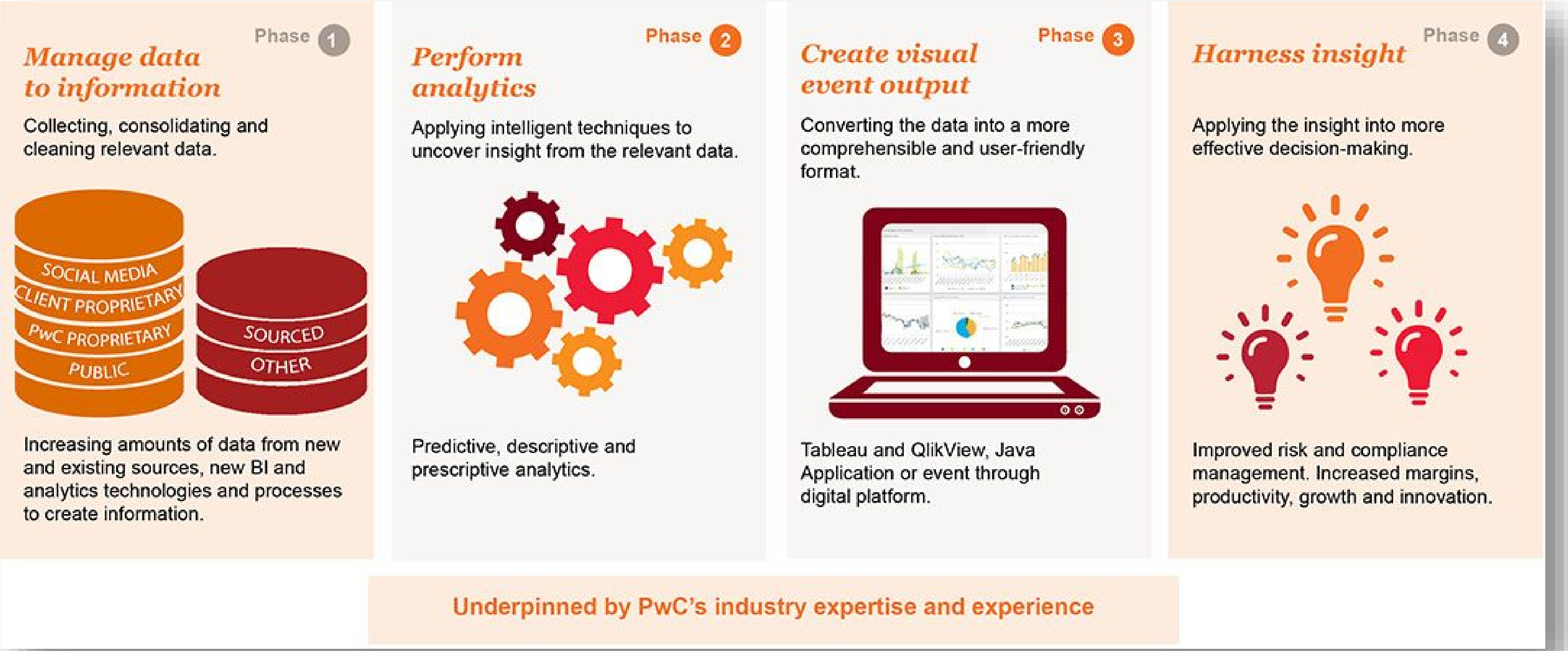
What are your biggest challenges in finance/accounting? (Pick Top 3)

CHOICE	
Not enough resources / support from C-Suite	16%
Lack of ability to delegate due to lack of skills in finance team	42%
Role stretch – increasing operational responsibilities prevent strategic focus	50%
Tension between old (compliance, controls) and new (strategic, value-add)	65%
Lack of capabilities in finance function to meet future strategic priorities	24%
Lack of IT systems support	24%
Other	7%

"A common factor behind the staffing and talent shortage is the need to find professionals with a mix of financial and data management skills. That accounts for the growing trend to hire consultants for certain projects." - AccountingToday

Data Analytics



Source: PwC Twitter @MikeQuindazzi

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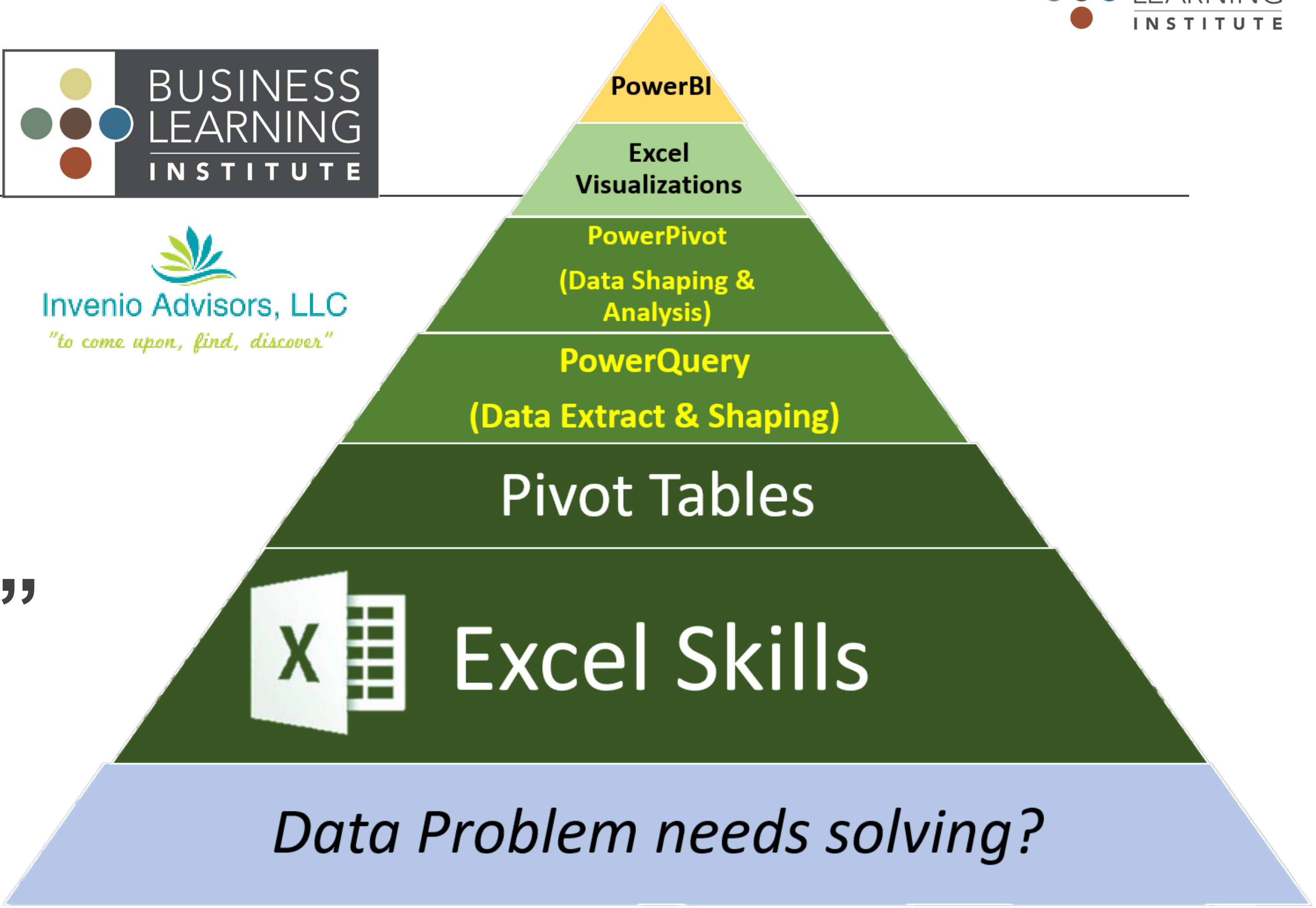
Invenio Advisors, LLC
"to come upon, find, discover"

Microsoft's Analytics "Ecosystem"



Digital

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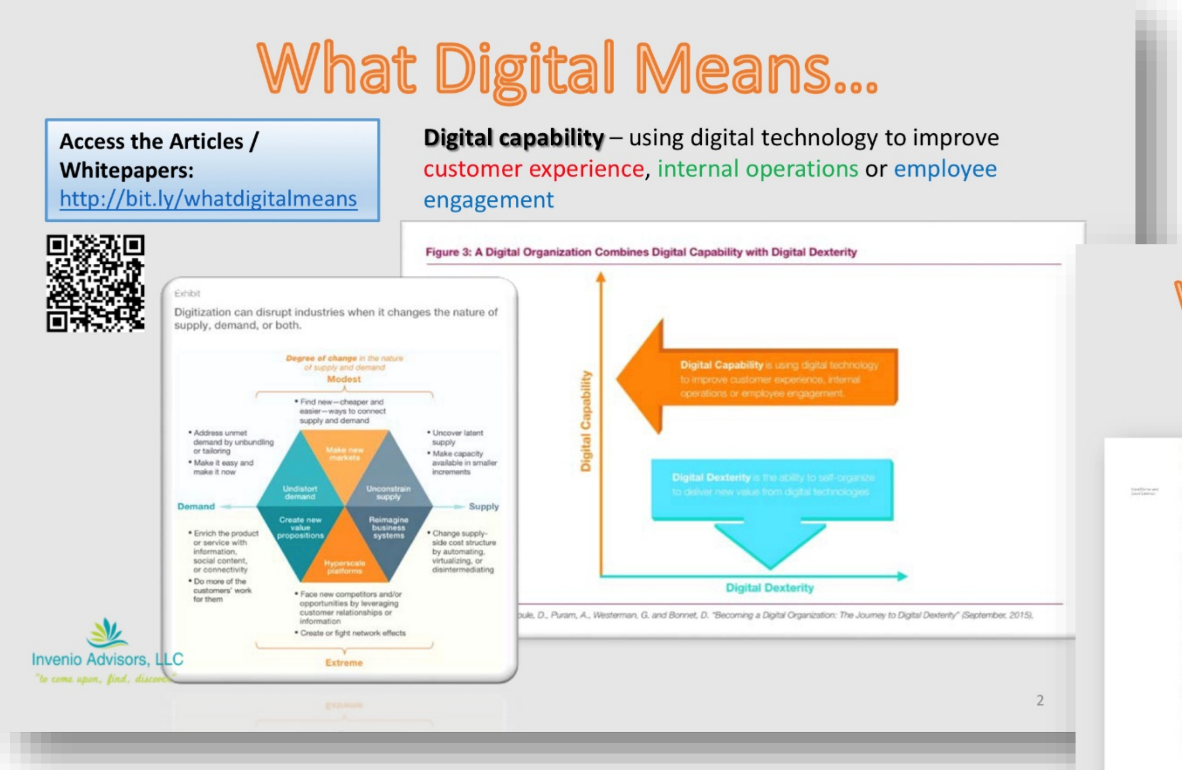
What Is Digital?



> *"…using* ***digital technology*** *to improve* ***customer experience***, ***internal operations*** *or* ***employee engagement***.

http://bit.ly/whatdigitalmeans

What Is Digital?

“Digital transformation is the integration of digital technology into all areas of a business, ***fundamentally changing how you operate and deliver value to customers***. It's also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.”

https://enterprisersproject.com/what-is-digital-transformation

What Is Digital?

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A note: *Some leaders feel the very term "digital transformation" has become so widely used, so broad, that it has become unhelpful.* You may not love the term. But love it or not, ***the business mandates*** behind the term – to rethink old operating models, to experiment more, to become more agile in your ability to respond to customers and rivals – ***aren't going anywhere.***

Simple Example? Email!

Communication modes have changed? Is email still your default?

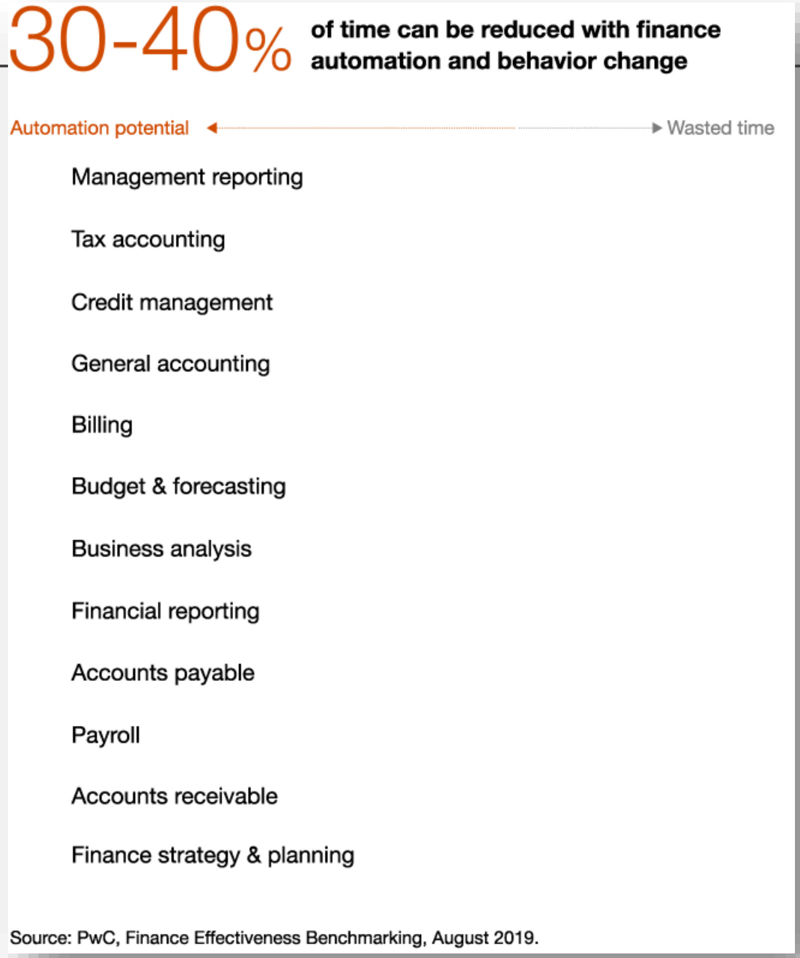
Today, communication happens over social (Facebook, LinkedIn, Snap, Instagram, Twitter, etc.), collaboration tools (MS Teams, Slack), texting, etc.

Are you communicating how your clients / staff prefer?

Automation

Finance Automation Potential

PwC, Finance Effectiveness Benchmarking Study, August 2019



https://www.pwc.com/us/en/services/consulting/finance/finance-effectiveness-benchmark-study/process.html

Finance Automation Potential

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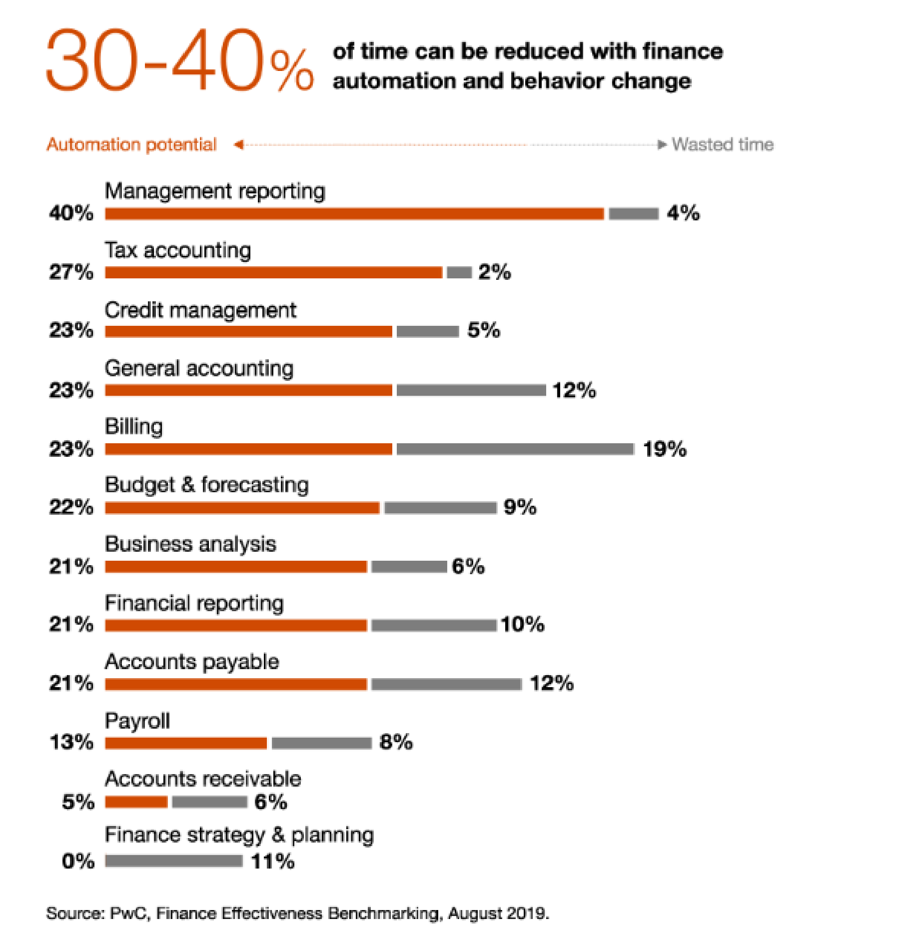
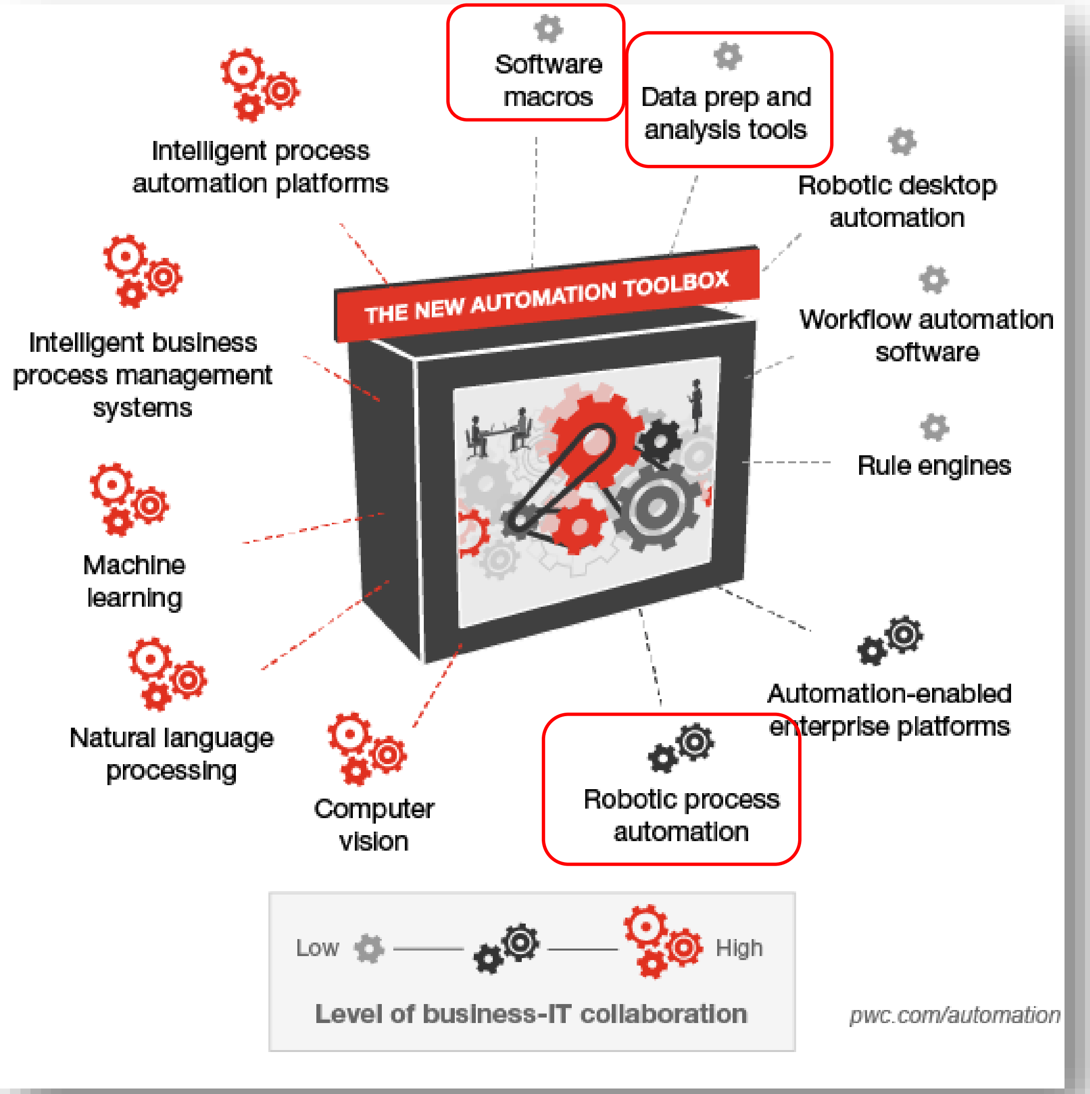


https://www.pwc.com/us/en/services/consulting/finance/finance-effectiveness-benchmark-study/process.html

Automation Toolbox

https://www.pwc.com/automation



Automation Toolbox

https://www.pwc.com/automation

The new automation toolbox

Level of business-IT collaboration — Low — High

Data prep and analysis tools
Automatically extract and integrate data from disparate sources, such as combining spreadsheet and ERP for analysis.

Robotic process automation
Automates repetitive activities across multiple systems via software robots that replicate a user's workflow.

Machine learning
Trained algorithms that make decisions as part of an automated process flow, such as selecting the optimal supplier at a given point in time.

Natural language processing
Algorithms that process speech or text input, such as a chatbot that interprets customer queries.

Computer vision
Automates capture of image or document information, such as reading forms.

Intelligent process automation platforms
Identify patterns and learn over time to optimize automated workflows.

Intelligent business process management systems
Orchestrate work allocation between humans and machines across multiple automation technologies.

Automation-enabled enterprise platforms
Extend processes via built-in RPA and AI capabilities.

Rule engines
Define the business rules that govern task or processes.

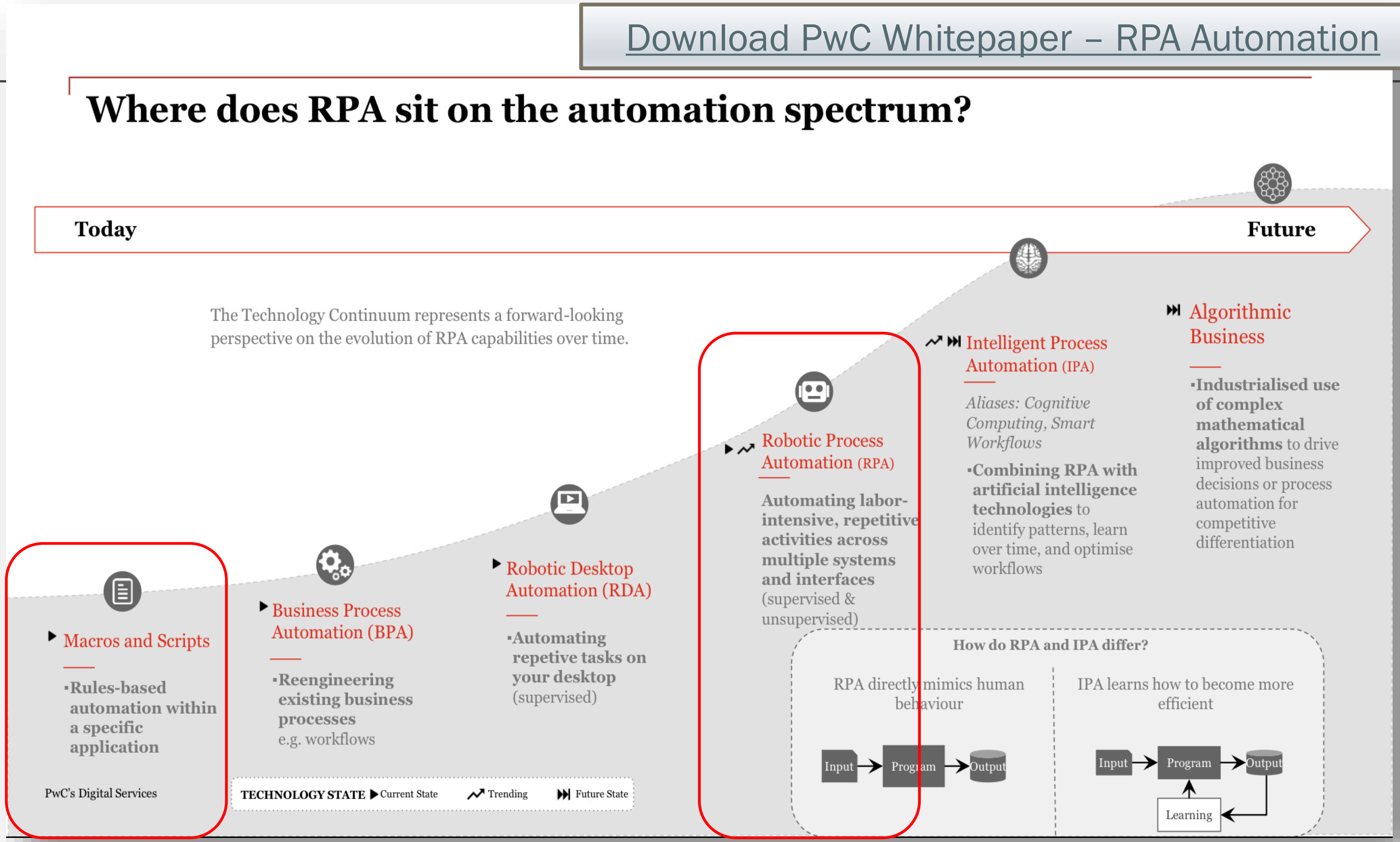
Workflow automation software
Automates workflows, often via a drag-and-drop interface, such as managing IT support tickets.

Robotic desktop automation
Automates repetitive tasks across desktop applications, such as validating customer data in a CRM system.

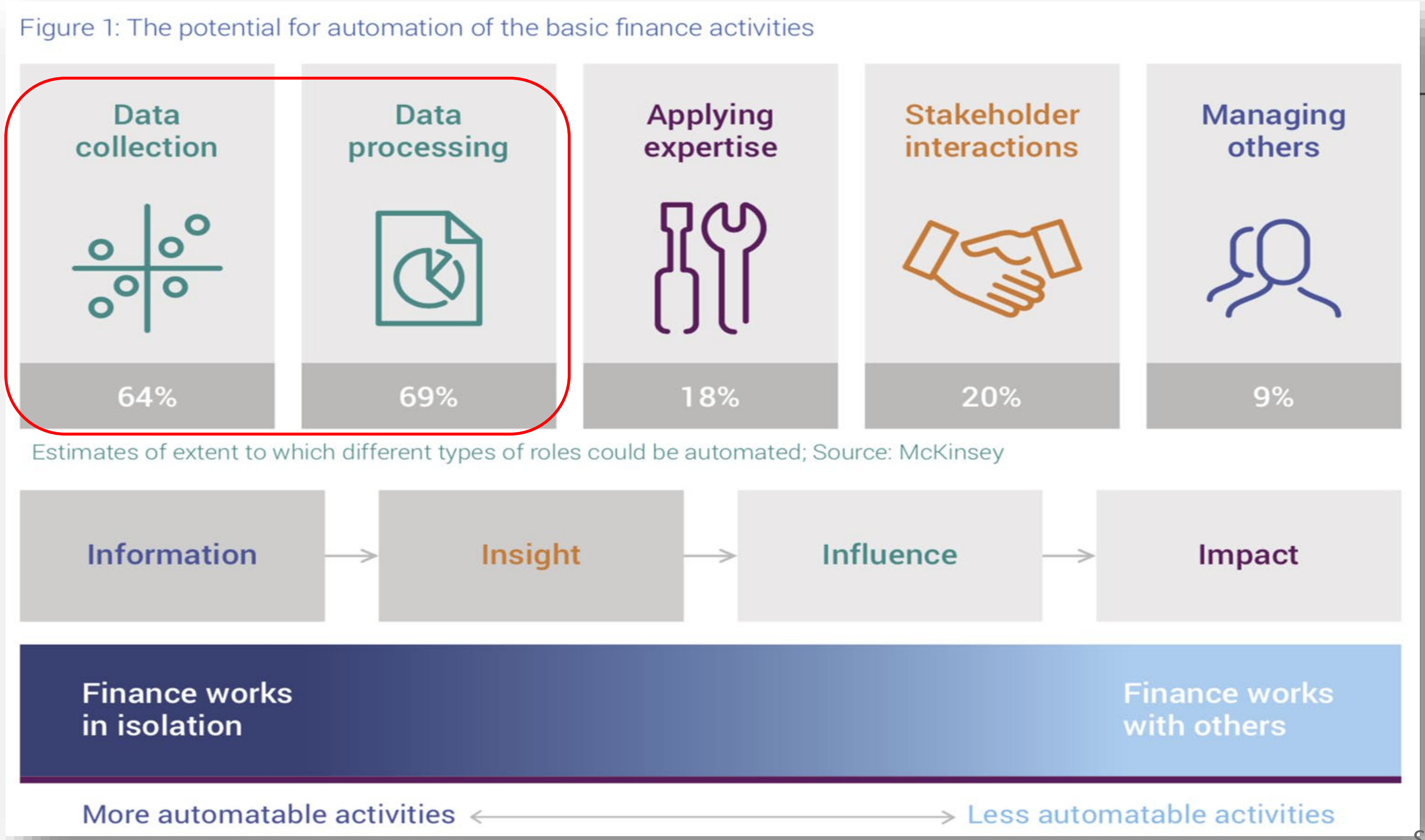
Software macros
Automate rule-based activities within a single application, such as performing spreadsheet calculations.

Automation Spectrum

Download PwC Whitepaper – RPA Automation

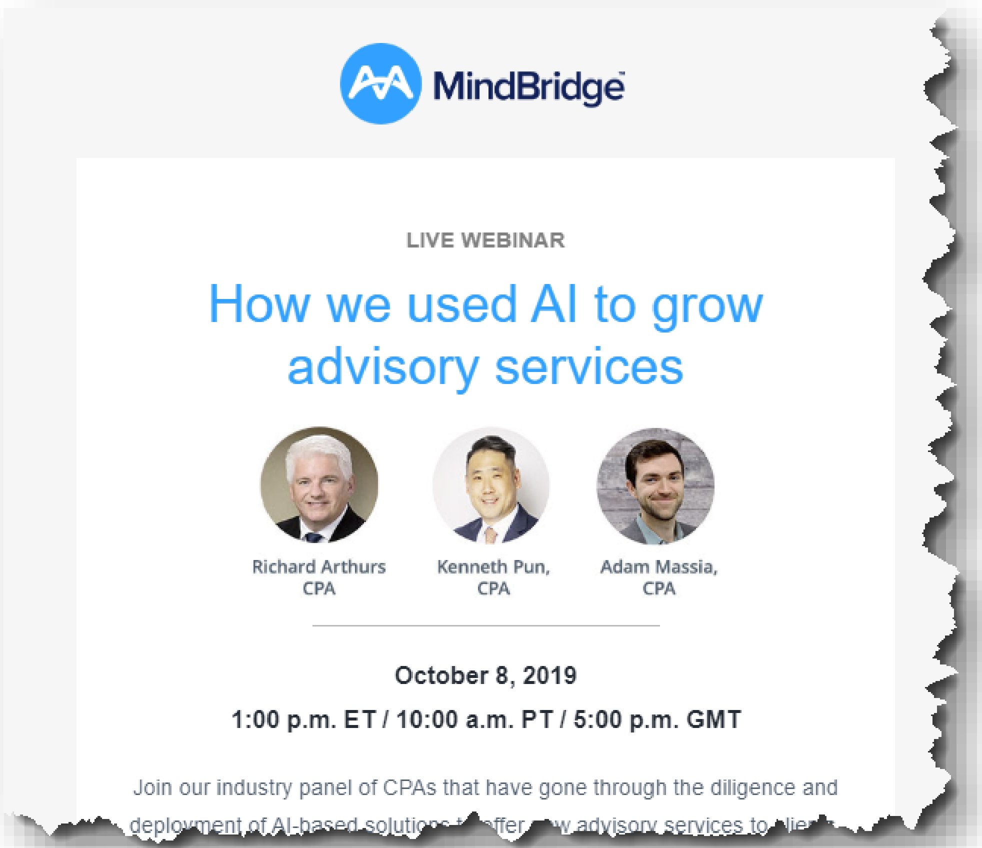


The Potential for Automation Activities in Finance & Accounting



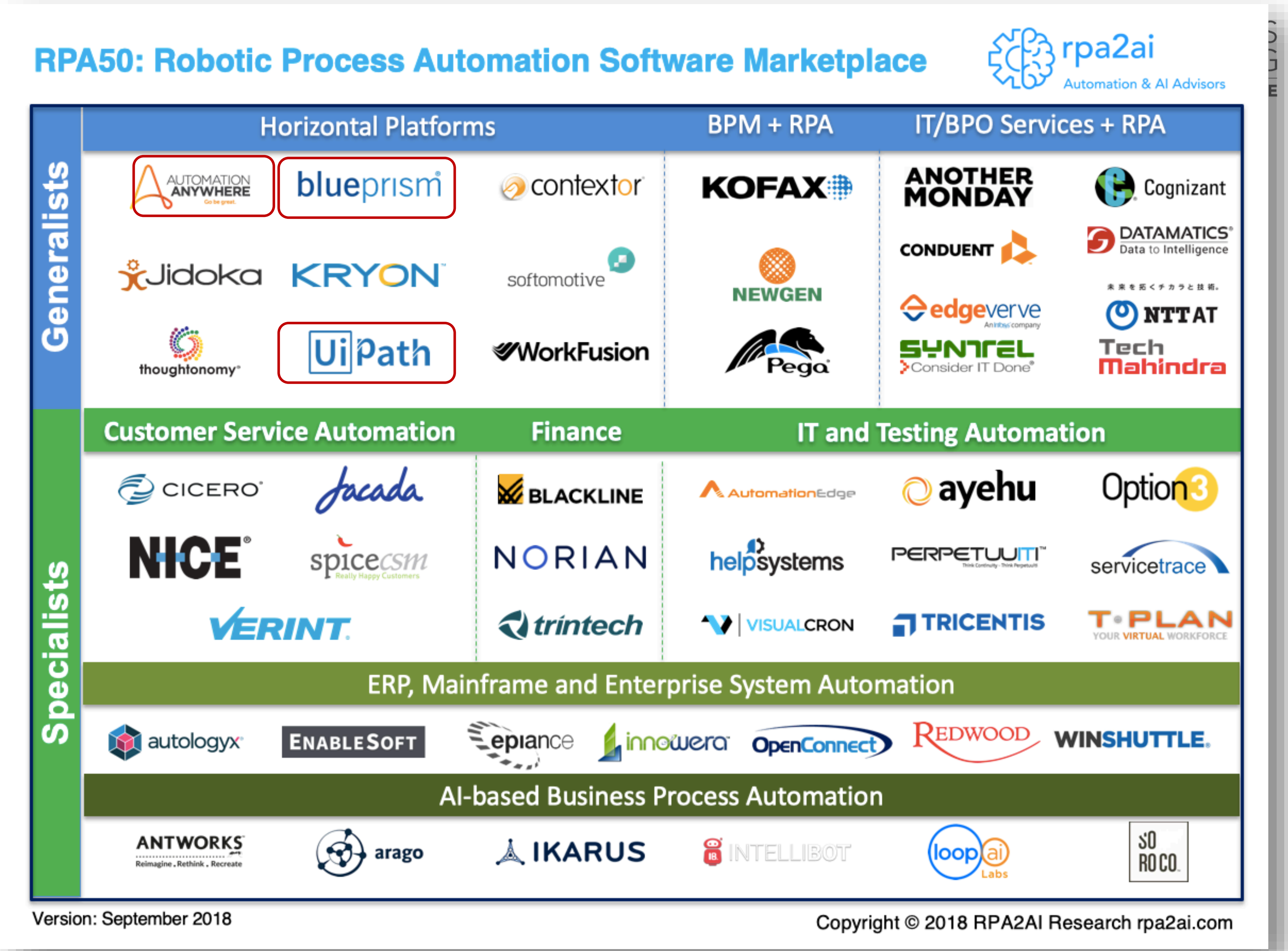
Source: CGMA - Changing Technology & Finance

Artificial Intelligence



AI for Accountants – Not "coming", it's here!

RPA Marketplace



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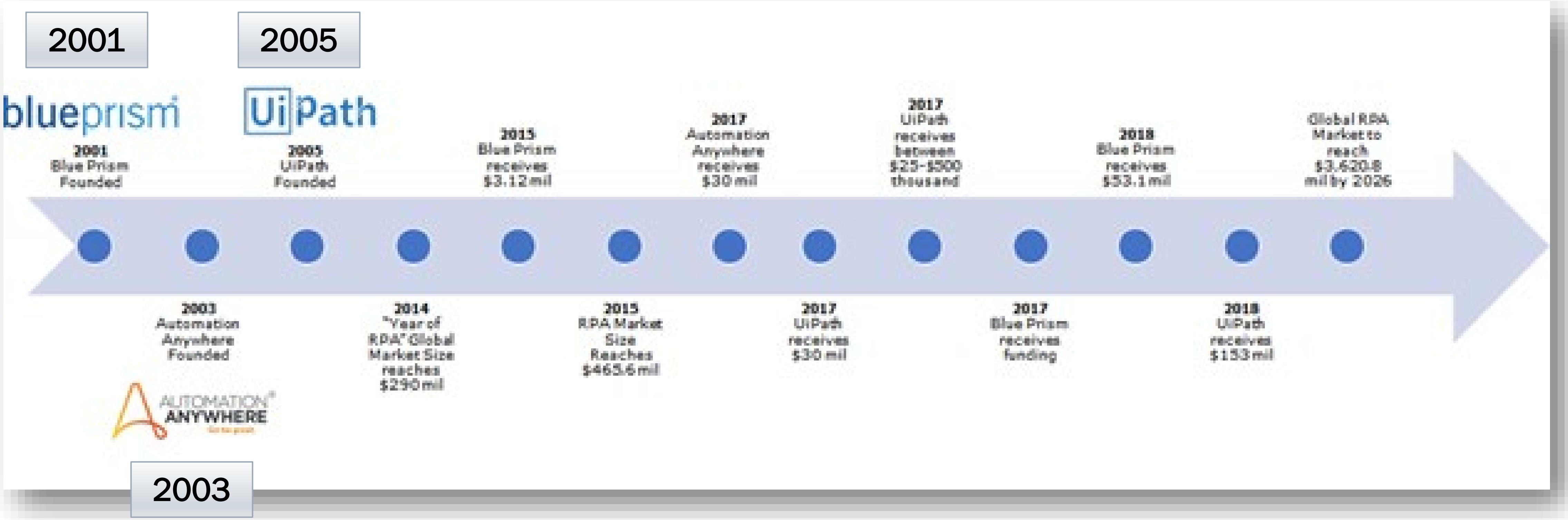
RPA Is Not New!



AI – Just Consider…

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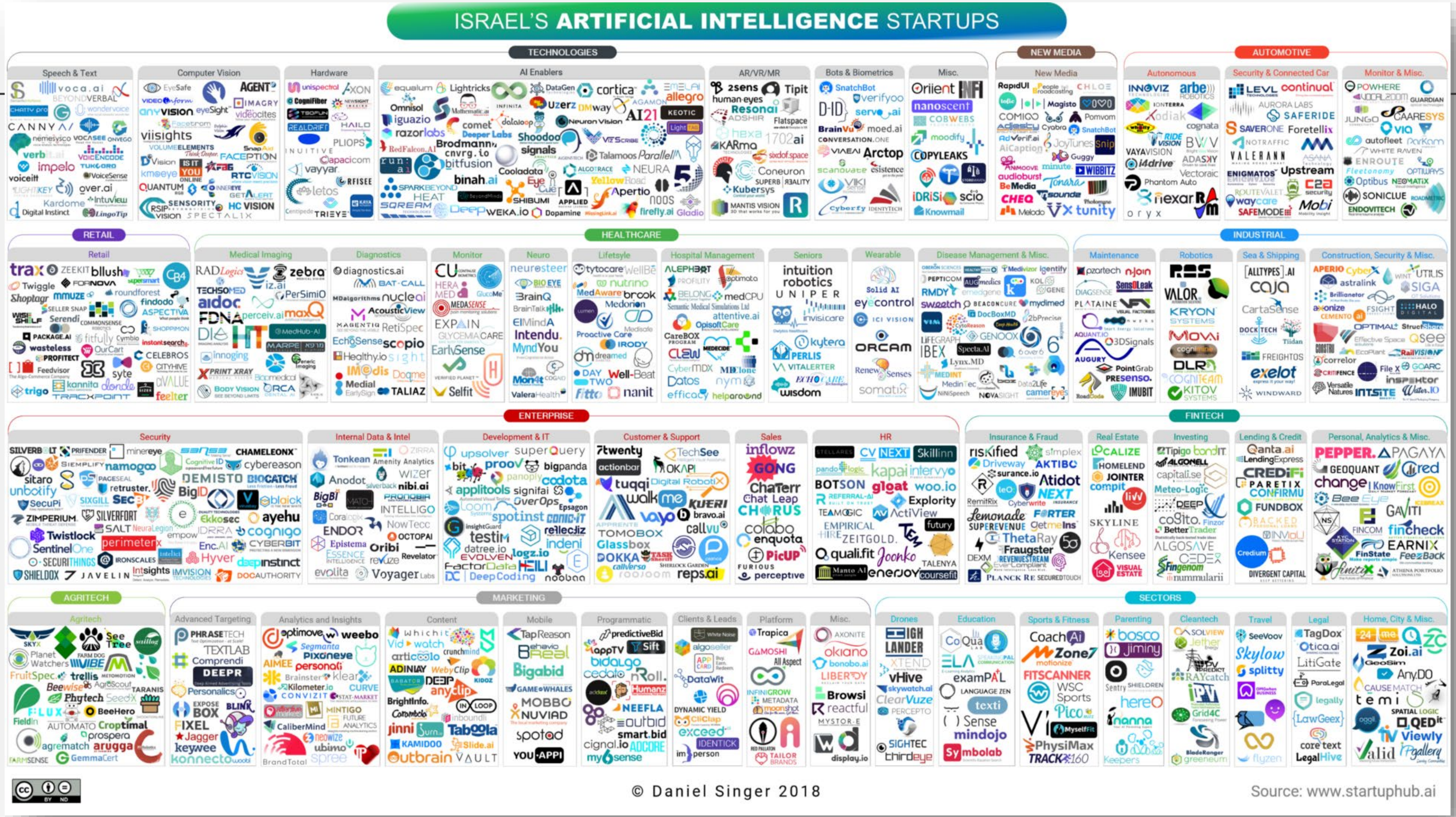


Blockchain

FEATURE / TECHNOLOGY

A different approach to applying blockchain

A Virginia-based CPA is rolling out a blockchain-based marketplace for transferring tax credits in all states that have legally transferable tax credits.

By Louise W. Reed, CPA, as told to Jeff Drew
7 hours 30 minutes ago

…and starting to see Blockchain use cases

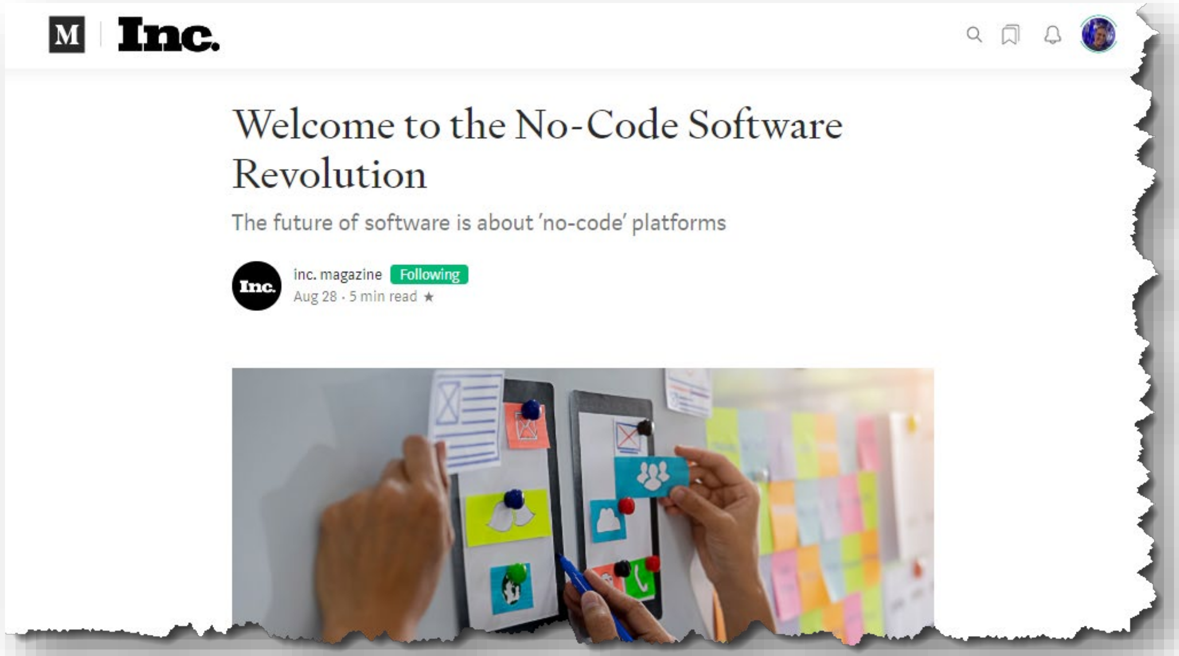
"AWARENESS, LEARN, LEVERAGE"

Mobile

Mobile

- "Mobile First"!
- We are mobile, our clients are mobile
- Opportunity to engage our clients has never been easier!
  - **"No Code"** services are making it easy for **<u>anyone</u>** to develop apps!
- *Have we adjusted our behaviors and workflows?*

No-Code?



https://medium.com/inc./welcome-to-the-no-code-software-revolution-6b75ee967df7

"Just like Google Cloud and Amazon Web Services dominate the cloud computing infrastructure market, in the future, no-code infrastructure platforms will shift the balance of power away from custom development to no-code application and business models. Zapier, for example, enables data sharing and "handshakes" across dozens of applications."

“No-Code” Landscape

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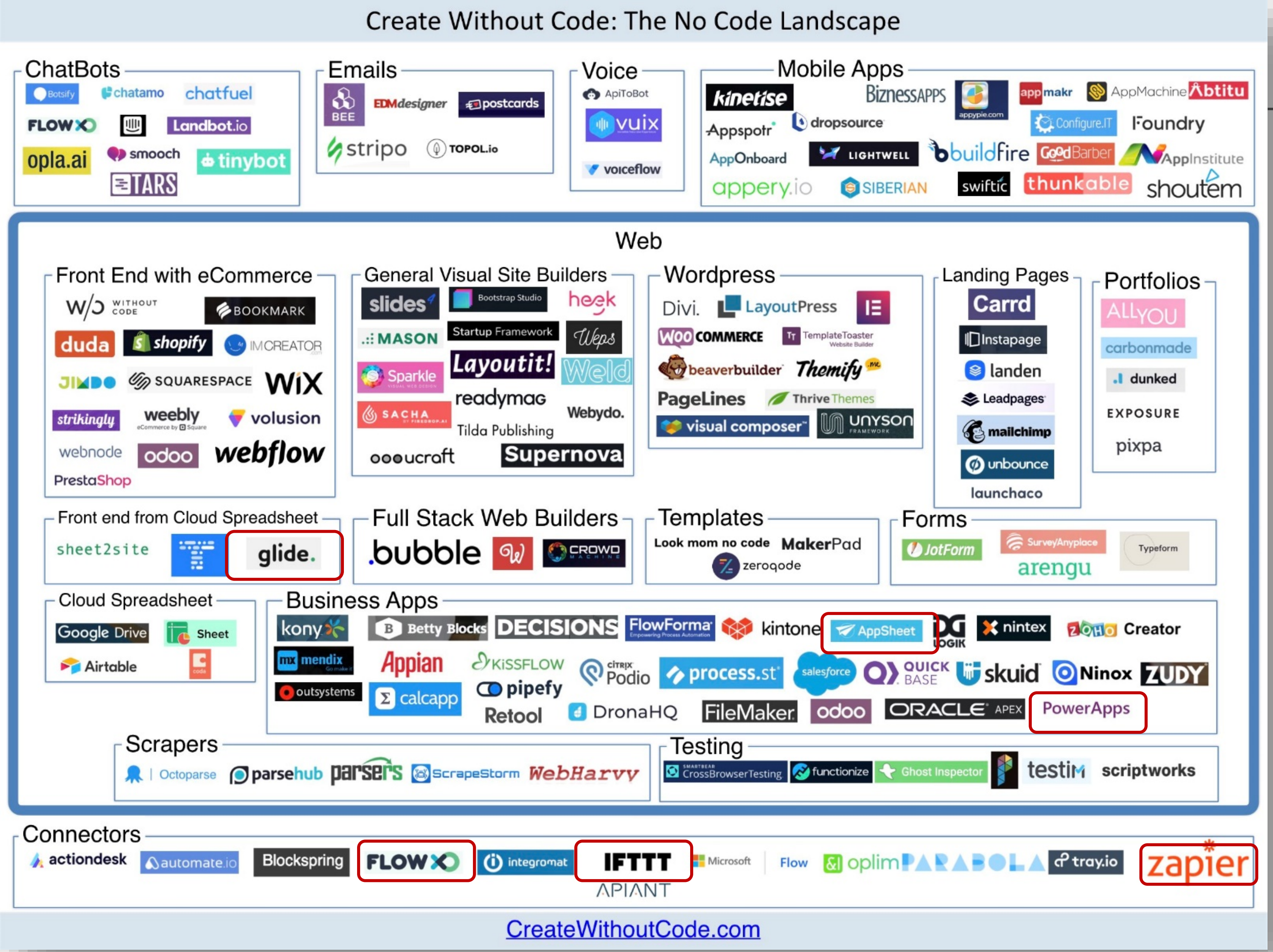
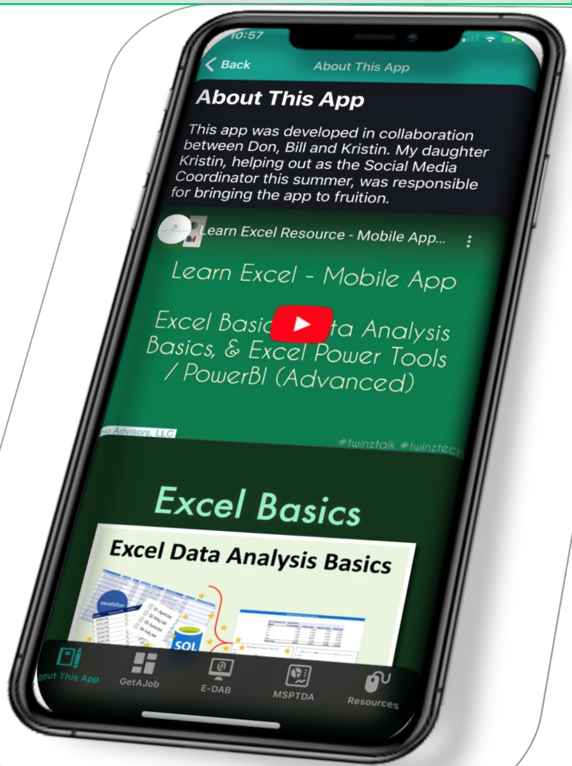


Mobile App "Handouts"

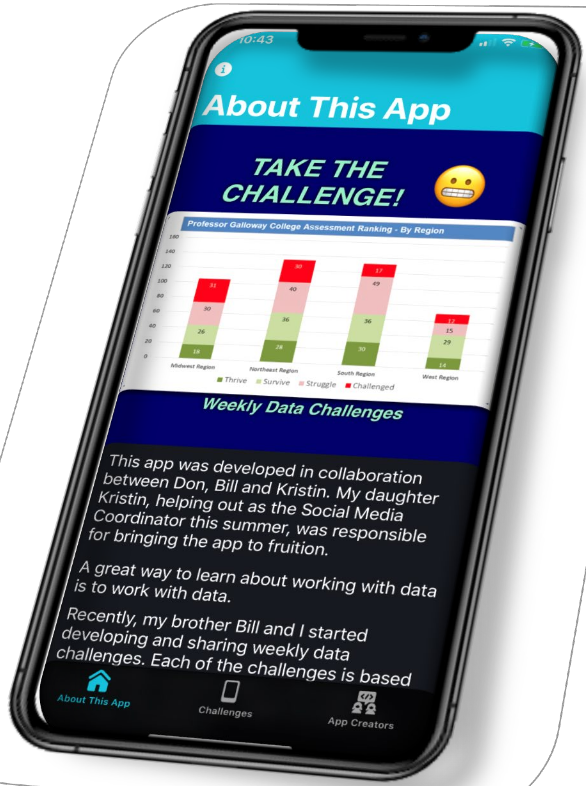
https://youtu.be/uDq1zih3Me4

GLIDE APP Opportunity!



Excel Basics & More

Excel >> PowerBI Intro



Take The Challenge!

Polling Question #2

Considering Automation, a topic covered was the PwC "Automation Toolbox" visual. Of the items mentioned below, which is considered the most basic automation tool?

1. Robotic process automation
2. Automation Scripts
3. Macros
4. Data prep tools

“WHAT CAN I DO?”

"What Can I Do?"

1. Overview
2. Personal Knowledge Mgmt ("PKM")
3. One approach
   - AWARENESS
   - LEARN
   - LEVERAGE

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What Can I Do? - Overview

Photo Credit Sharon McCutcheon via Unsplash

Shift from Career Paths to Career Experiences: Five Ways to Invest in Yourself Today

Published on October 4, 2019

Danielle Guzman
Global leader | Social Media | Digital Marketing | Employee Advocacy | Personal Branding

10 articles

https://www.linkedin.com/pulse/shift-from-career-paths-experiences-five-ways-invest-yourself-guzman/

"The future belongs to those who want it."

"…wanting and getting are two different things."

"… it's necessary to translate "want" into action and transform yourself into a future-ready asset,…"

"But whereas in the past your employer may have managed this transformation, the future of work means it begins and ends with you."

Here's The Secret…

everything
you want
is waiting
for
you on the
other side
of consistency

Personal Knowledge Mgmt (“PKM”)

1. “**Personal knowledge management** (**PKM**) is a collection of processes ***that a person uses to gather, classify, store, search, retrieve and share knowledge*** in their daily activities (Grundspenkis 2007) and the way in which these processes support work activities (Wright 2005).
2. It is a response to the idea that ***knowledge workers need to be responsible for their own growth and learning*** (Smedley 2009).

https://en.wikipedia.org/wiki/Personal_knowledge_management

Breakdown "A.D.A.M."

1. **A**nalytics (ALL)
2. **D**igital (ALL)
3. **A**utomation (AL)
4. **M**obile (AL)

Awareness - 1

1. Identify your core sources (Industry, Business, influencers, Social feeds, #hashtags, YouTube, etc)
2. If topic AT ALL hits your radar, **CAPTURE IT** (Digital and searchable is critical!)
   - Leverage the Cloud - develop a “Content Library” (PDFs, links, articles,etc)
   - Content locations should be minimized (e.g., Evernote, OneNote, Slack, etc) for easy access and retrieval.

Awareness - 2

3. ***Automate*** whenever possible (e.g, everything I "like" on Twitter gets captured in a spreadsheet, specific hashtags, etc)
4. Make the process **FLEXIBLE** (mobile)
5. Crowd-source content curation!
6. Google Search is your friend!

Learn

1. Identify OPPORTUNITIES (Effort vs Reward consideration, “disproportionate advantage”) – Brainstorm!
2. “What If?”, “Why?”
3. Now, our content library becomes a Resource
4. Consistency is CRITICAL
5. Develop a Learning Group
6. Set constraints (Complete x by y)
7. Repeat the process - this journey never stops

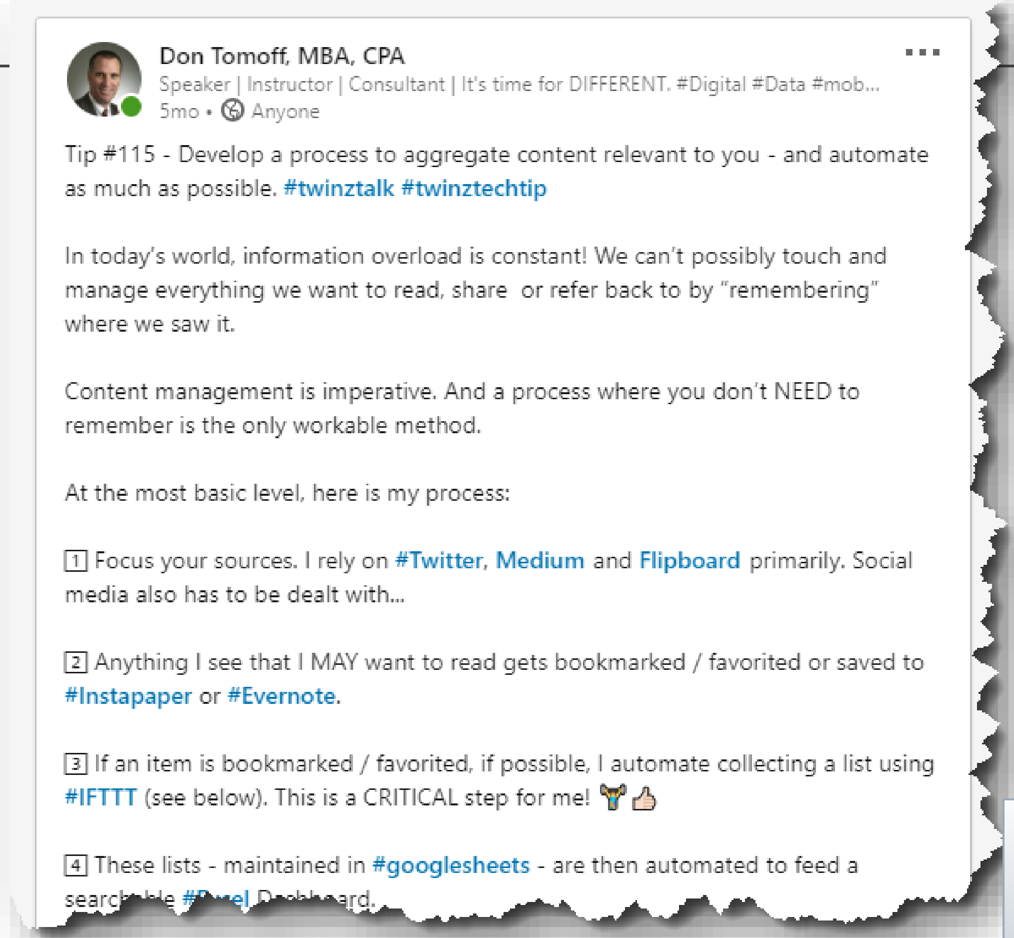
Leverage

1. Build resources for repeated use
2. AUTOMATE
3. Preparation + Opportunity = “Luck”
4. ABC - Always Build Capacity!
5. Share & Teach what you learn!

Bringing It Together

- **Mobile** (Evernote, OneNote, GoodReader, Slack, InstaPaper)
- **Desktop** (X1 Search, Excel File Directory list)
- **Cloud** (Box, Google Drive, OneDrive, Dropbox)
- **MS Office 365** (A Must)
- Excel Power Tools, PowerBI & Process Automation (**PowerQuery, PowerPivot**)
- **Automation** - BASIC (Macros, Scripts, MS Power Automate, Zapier, IFTTT)

Develop A Content Aggregation Process



Don Tomoff, MBA, CPA
Speaker | Instructor | Consultant | It's time for DIFFERENT. #Digital #Data #mob...
5mo • Anyone

Tip #115 - Develop a process to aggregate content relevant to you - and automate as much as possible. #twinztalk #twinztechtip

In today's world, information overload is constant! We can't possibly touch and manage everything we want to read, share or refer back to by "remembering" where we saw it.

Content management is imperative. And a process where you don't NEED to remember is the only workable method.

At the most basic level, here is my process:

1 Focus your sources. I rely on #Twitter, Medium and Flipboard primarily. Social media also has to be dealt with...

2 Anything I see that I MAY want to read gets bookmarked / favorited or saved to #Instapaper or #Evernote.

3 If an item is bookmarked / favorited, if possible, I automate collecting a list using #IFTTT (see below). This is a CRITICAL step for me! 🏋 👍

4 These lists - maintained in #googlesheets - are then automated to feed a searchable #Pyxel Dashboard.

https://www.linkedin.com/feed/update/urn:li:activity:6532947539182841856/

"We can't possibly touch and manage everything we want to read, share or refer back to by "remembering" where we saw it."

Slack For Content Curation

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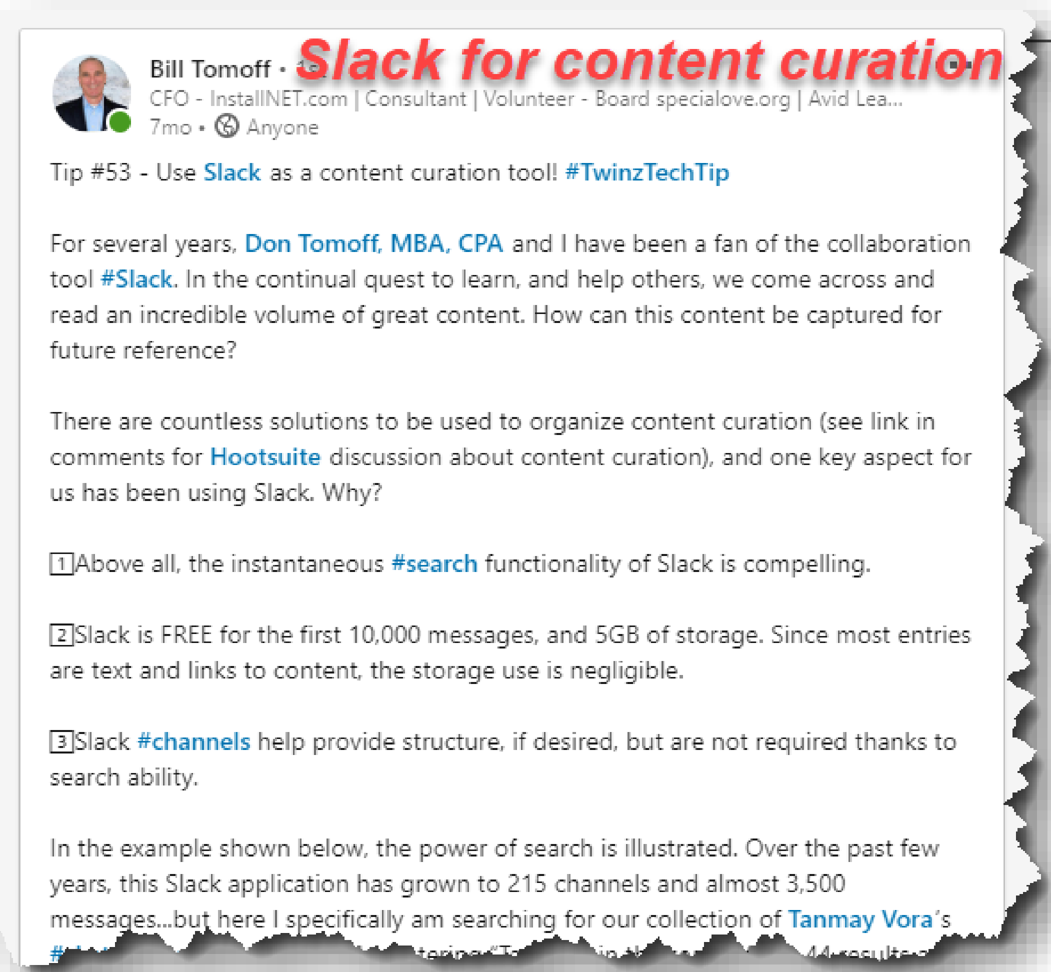

Slack for content curation

Bill Tomoff ·
CFO - InstallNET.com | Consultant | Volunteer - Board specialove.org | Avid Lea...
7mo • Anyone

Tip #53 - Use Slack as a content curation tool! #TwinzTechTip

For several years, Don Tomoff, MBA, CPA and I have been a fan of the collaboration tool #Slack. In the continual quest to learn, and help others, we come across and read an incredible volume of great content. How can this content be captured for future reference?

There are countless solutions to be used to organize content curation (see link in comments for Hootsuite discussion about content curation), and one key aspect for us has been using Slack. Why?

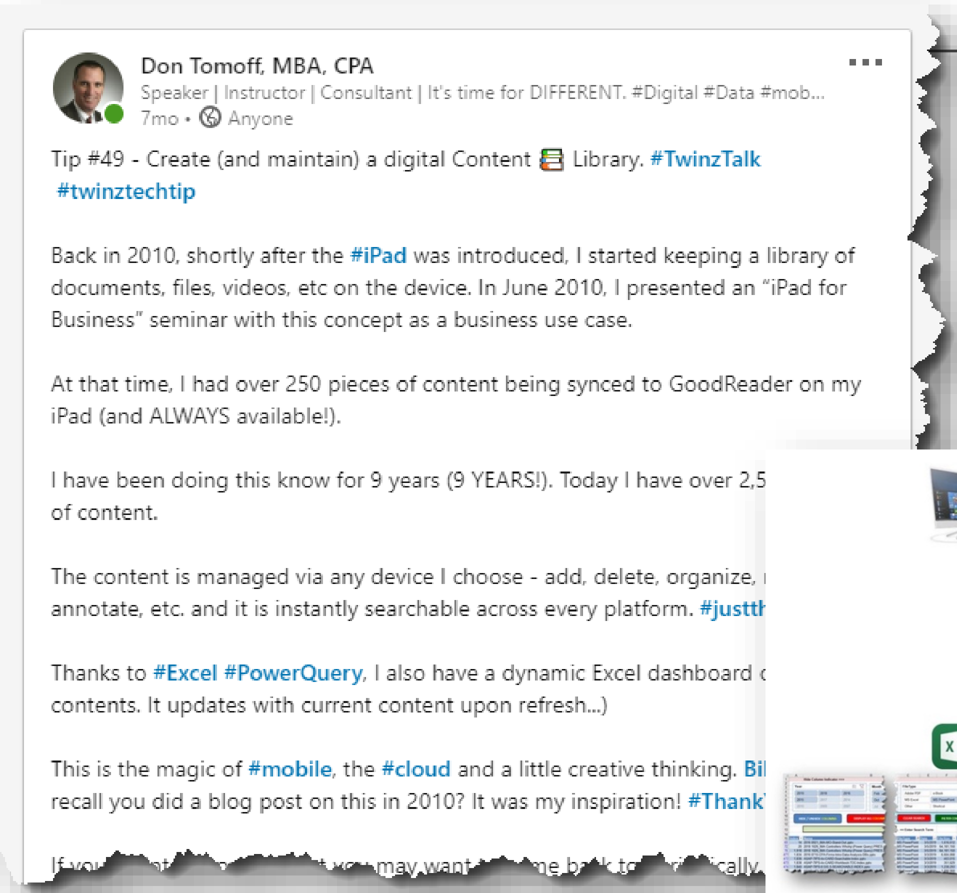
1 Above all, the instantaneous #search functionality of Slack is compelling.

2 Slack is FREE for the first 10,000 messages, and 5GB of storage. Since most entries are text and links to content, the storage use is negligible.

3 Slack #channels help provide structure, if desired, but are not required thanks to search ability.

In the example shown below, the power of search is illustrated. Over the past few years, this Slack application has grown to 215 channels and almost 3,500 messages...but here I specifically am searching for our collection of Tanmay Vora's

Create a Digital Content Library


Don Tomoff, MBA, CPA
Speaker | Instructor | Consultant | It's time for DIFFERENT. #Digital #Data #mob...
7mo • Anyone

Tip #49 - Create (and maintain) a digital Content Library. #TwinzTalk #twinztechtip

Back in 2010, shortly after the #iPad was introduced, I started keeping a library of documents, files, videos, etc on the device. In June 2010, I presented an "iPad for Business" seminar with this concept as a business use case.

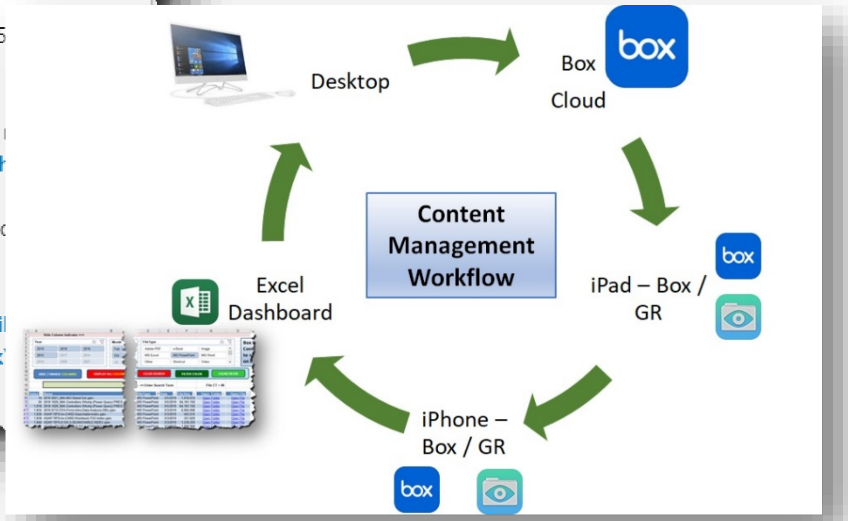
At that time, I had over 250 pieces of content being synced to GoodReader on my iPad (and ALWAYS available!).

I have been doing this know for 9 years (9 YEARS!). Today I have over 2,5
of content.

The content is managed via any device I choose - add, delete, organize,
annotate, etc. and it is instantly searchable across every platform. #justth

Thanks to #Excel #PowerQuery, I also have a dynamic Excel dashboard
contents. It updates with current content upon refresh...)

This is the magic of #mobile, the #cloud and a little creative thinking. Bi
recall you did a blog post on this in 2010? It was my inspiration! #Thank



https://www.linkedin.com/feed/update/urn:li:activity:6511929597557293057/

Polling Question #3

Of the major trend groups, what area(s) were recommended for accountants to focus on FIRST for “Leverage”?

1. Data
2. Automation
3. Data & Digital
4. Mobile

START. HERE. – 6 BASICS

1. Data
   - Excel / Office 365
   - Power Tools (PowerQuery & PowerPivot)
   - PowerBI (other viz tools if you have them (Tableau, etc.)
2. Digital
   - Collaboration (MS Teams / Slack / Zoom, etc.)
   - Digital document management / access anywhere
   - Content Curation / build and BECOME a resource.

WRAP UP

Wrap Up

Review Learning Objectives:

1. Understand the significant technology trends impacting the accounting profession ✓
2. Understand a framework for monitoring and awareness of technology changes ✓
3. Develop a personal knowledge management ("PKM) system for use by individuals or their organization ✓
4. Apply the "ALL" (Awareness, Learn, Leverage) process to developing relevant skills ✓

One Final Thought

"Our choice is profound, and more urgent every day: either do a job where your best judgment is required, *or do a job where management will work hard to replace you with someone cheaper.*

Race to the top, race to the bottom.

Either way, you might win. Up to you."

-- Seth Godin

About Don

Don Tomoff

LinkedIn Profile

- #twinztalk
- #twinztechtip

Twitter

Google Search Don

Don’s Blog on Medium

BLI Instructor

CPA, MBA with over 30 years experience – senior financial executive in industry and consulting