

RELEVANCE

EXCELLENCE

RESULTS



Reshaping Internal Audit Processes

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January 17, 2020

Why Internal Audit Needs to Reshape Internal Audit Processes

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Technology is Driving Changes Within the World at Light Speed

- 4th Industrial Revolution
- 5 G technology: 200 x the speed of 4 G and transfer speeds 10 X
- Drones
- Artificial Intelligence
- Block Chain
- Nano Technologies

Technology is Driving Changes Within the World at Light Speed

- Digitalization
- Cyber
- Dev Ops and API; revolutionizing software development
- Many new tools every day to improve processes
- Competition is coming from everywhere
- Culture and people transformation (needing to re-tool people)

The 4th Industrial Revolution

One Definition

“...the fusing of the physical, digital, and biological worlds that can impact all disciplines, economies, and industries. From ending the world's dependence on fossil fuels to the melding of humans and machines, 4IR promises not just inspirational innovation and digital disruption, but a paradigm shift in business, socioeconomic norms, government, and the human experience. This seismic transformation will rewrite the unspoken contract between business and customers.”

Excerpted from “Internal Auditing and the Fourth Industrial Revolution”

Richard Chambers July 31, 2017

What Are Some Of These Technologies?

Top Business Challenges ⁽¹⁾

- Uncertainty
 - Globalization
 - Innovation
 - Regulation
 - Technology
 - Diversity
- Complexity
 - Information Overload
 - Supply Chains
 - Problem Solving

Our stakeholders face increasing challenges, and that impacts Internal Audit.

(1) BMGI “Top Ten Problems Faced by Business”

Rising Expectations

“As we continue to meet the challenges thrown at us every day, the expectations bar ratchets higher and higher.”

Carolyn Saint
Vice-President, Internal Audit
7-Eleven

“Audit committees and management expect more from internal audit, providing a huge opportunity for internal audit functions to be relevant contributors to protecting stakeholder value and the business from the most critical risks.”

Jason Pett
US Internal Audit Services Leader
PricewaterhouseCoopers

Rising Expectations (cont'd)



- 55% of senior management do not believe IA adds significant value to their organization.
- 30% of board members believe IA adds less than significant value.
- Only 49% of senior management and 64% of board members believe internal audit is performing well at delivering on expectations.

Where do your stakeholders put you?

Rising Expectations (cont'd)

Survey respondents indicate that the top risks which audit committees and executive management are focusing on are...

Rank	Audit Committees	Executive Management
1	Strategic Business Risks	Strategic Business Risks
2	Operational	Operational
3	Compliance/Regulatory	Compliance/Regulatory
4	Information Technology	Information Technology
5	Risk Management Effectiveness	Cost/Expense Reduction

Survey respondents reported that strategic business risks are the top priority for audit committees (28%) and executive management (46%),

Source: *The Pulse of the Profession Survey*: ©
2014 The IIA Audit Executive Center.

Ready or Not?

Most Organizations Aren't Ready

“72% of executives responding to an IBM and *Harvard Business Review* (HBR) survey said they are susceptible to digital disruption by competitors in the next three years. What is more disturbing is that a third of the 600 business executives responding to the survey rated their organization as ineffective when it comes to adopting new technologies.”

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Are You Looking Around The Corner?

Key Question for Internal Auditors

Per the Bureau of Labor Statistics, five industry sectors are projected to have decreases in employment from 2012 to 2022:

- 🌐 Manufacturing (549,500)
- 🌐 Federal government (407,500)
- 🌐 Agriculture, forestry, fishing, and hunting (223,500)
- 🌐 Information (-65,200)
- 🌐 Utilities (-56,400)

Whether due to technology, skill obsolescence, or other factors, the key lesson is “the cost ultimately exceeded the value”.

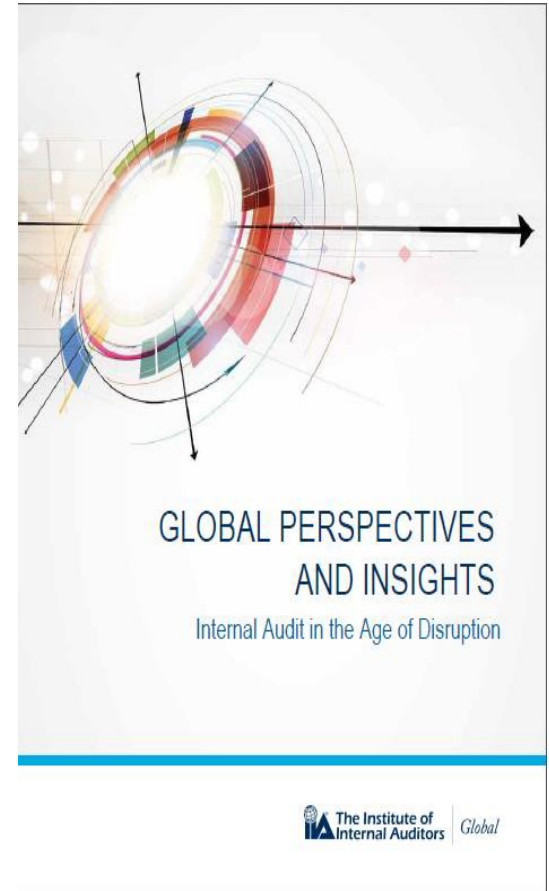
You can be impacted whether you are the best auditor in a declining industry, or an average auditor in a non-declining industry.

Change is Coming for our Profession

Whether happening now, soon, or later, these changes will impact Internal Audit:

- What we audit (implementations, technologies)
- Who we hire (innovators, IT skills, change agents)
- How we audit (leveraging technology, embedding controls)

Recognize that the speed of change requires a more “agile” approach to everything we do. Audit must be agile to avoid being seen as an “inhibitor”.



Change is Coming for our Profession

If our organizations and departments are being impacted, then...

- The skills we need will change - continuously
- Our knowledge of technology (current and future) must increase
- How we lead and influence others will change

The doomsday (or optimist) scenario – automation replaces us all.

Vivienne Ming: ‘The professional class is about to be blindsided by AI’

- Rana Foroohar, July 27, 2018; Lunch with the FT Artificial Intelligence

Twin Trends of Aging and Automation: Risks to Anticipate

- Patty Sung, July 19, 2018; NACD BoardTalk

What Happens if we Don't Reshape Internal Audit Processes?

- The dictionary says extinction occurs when species are diminished due to environmental or technological changes.
- Most evolving lineages, human or otherwise, when threatened with extinction, don't do anything to avoid it.
- Extinction is the rule; survival is the exception.
- He or she who refuse to learn, deserves extinction.

What Happens if we Don't Reshape Internal Audit Processes?

- For Internal Auditors to remain relevant, we must adapt our processes to the changes so that we can be seen as **THE AGENTS OF CHANGE by ADDING VALUE**
- All Internal Auditors have are process, people and tools; all must adapt now!
- When did you last “audit” yourself, your department or our profession?

How Do We Audit Add Value

- L**istening to the concerns of the Audit Committee and Management
- E**xecuting audit plans that support their top concerns
- A**ctively partnering across the enterprise on emerging risks
- D**eveloping a diverse team while strengthening each business function
- I**nvesting in yourself and your team to stay ahead of change
- N**avigating through the 4th industrial revolution
- G**athering information to help the AC understand emerging risks

Align Audit Plans Around Company Mission, Strategy and Objectives

- Yet, 43% of auditors say their audit plans don't align
- 64% of stakeholders want us to assess/evaluate strategic risks
- Dispatch assurance activities efficiently to free up time for more advising and consulting
- Lean forward; provide more insight and foresight
- Obtain/retain the right talent to execute the audit plan
- Anticipate emerging issues; educate the audit committee

We Must be an Active Partner in Digital Transformation

Robotic process automation (RPA), artificial intelligence (AI) and machine learning (ML)

Supply Chain, Shared Services, Human Resources, etc.

Understand the technology and human aspects; change management

Ensure you have the expertise to add value to such projects

Great internal audit resources on these topics

Audit Committees and Management expect us to better leverage data and analytics for deeper insight into company performance?

What are “Technology Disruptors”?

Per Investopedia:

Disruptive technologies are those that significantly alter the way businesses or industries operate.

Examples:

- Mobile Apps:
 - Uber
 - Mobile Banking
 - Netflix
- Digitization:
 - Apple (music)
 - Kodak (photography)
 - Bookstores

What is a disruptor for one organization is not a disruptor for all

What are “Technology Disruptors”?

Technologies companies are rapidly adopting without assessing the associated risks



47%

Mobile applications and devices



46%

Internet of Things



44%

Cloud computing



34%

Artificial intelligence



32%

Robotics process automation



25%

Cognitive computing



14%

Blockchain



11%

3D printing

These risks and their importance to our stakeholders are growing

Excerpted from KPMG's 2018 "Disruption is the new norm - Tech risk management survey report"

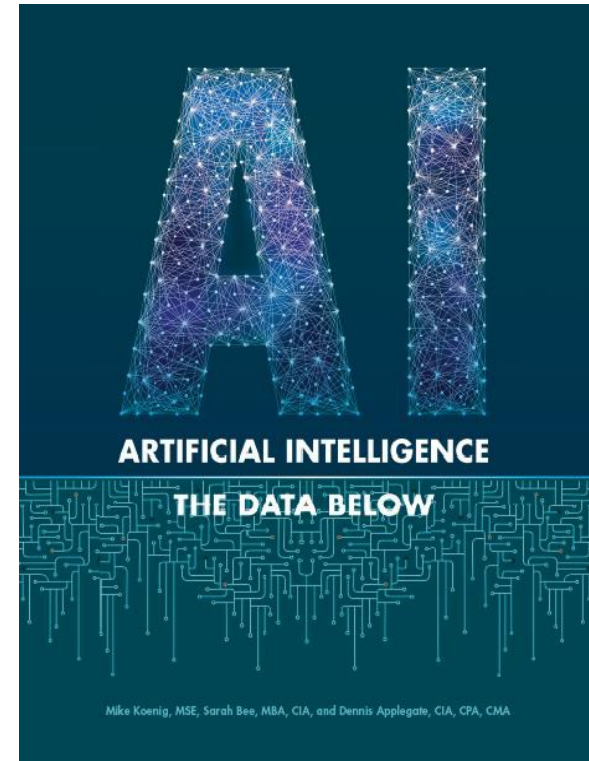
Artificial Intelligence - Impact

- Tata Consultancy Services polled ⁽¹⁾
 - 835 executives
 - 13 global industries
 - 4 world regions
- 84% of companies see AI as “essential” to competitiveness
- 50% see the technology as “transformative.”
- The biggest adopters are IT depts.
 - 67% use to detect security intrusions, user issues and deliver automation.
- By 2020:
 - 32% believe greatest impact will be in sales, marketing or customer service
 - 20% see impact in non-customer facing functions (e.g., finance, strategic planning, and HR.)

(1) March 17, 2017; Help Net Security; What impact will artificial intelligence have on business?

Artificial Intelligence - Risks

- Algorithm development
- Data
- Security
- Privacy
- Regulation
- Overreliance
- Ethics



AI's major limiting feature – the complexity of software algorithm development – is being replaced by the complexity of data preparation.

Using AI

- Developed with excellent predictive analytic capacities. (e.g., Amazon)
- Commercial AI solutions (e.g., feedzai) combat fraud.
- Reduces the number of false positives and increases speed and accuracy of detection.
- Financial services use these techniques to investigate potential fraud.
- Helps auditors focus on the behaviors to find fraud faster and more accurately.



Technology – Good or Bad?

The leader in artificial intelligence will rule world



AI is likely to be either the best or worst thing to happen to humanity



Blockchain - Impact

- Financial Services
- Voting
- Real Estate
- Supply Chain
- Agriculture
- Healthcare
- Charitable Giving



Blockchain technology is disrupting business as we know it.

15 Industries That Will Be Impacted by Blockchain

- Garrett Baldwin, May 3, 2018

Blockchain - Risks

- Security
 - Endpoint vulnerabilities
 - Untested code
 - Vendor risks
- Regulations
- Integration with systems, customers and partners
- Insurability



The Financial Stability Oversight Council suggested risks associated with Blockchain may not emerge until solutions are deployed at scale due to, participants' limited experience with it.

Using RPA

- Deloitte uses cognitive technology— data analysis, visualization, workflow automation, and RPA—to review contract terms and electronic documents.
- The reviews enabled by cognitive technology eliminates samples; allows review of 100 % of contracts.
- The reviews also incorporate segmentation of documents. (e.g, contracts that include escalation clauses from those that do not.)



Jon Raphael
Deloitte & Touche LLP
Chief Innovation Officer

Excerpted from “Creating a Cognitive Audit”, by Tom Davenport and Jon Raphael

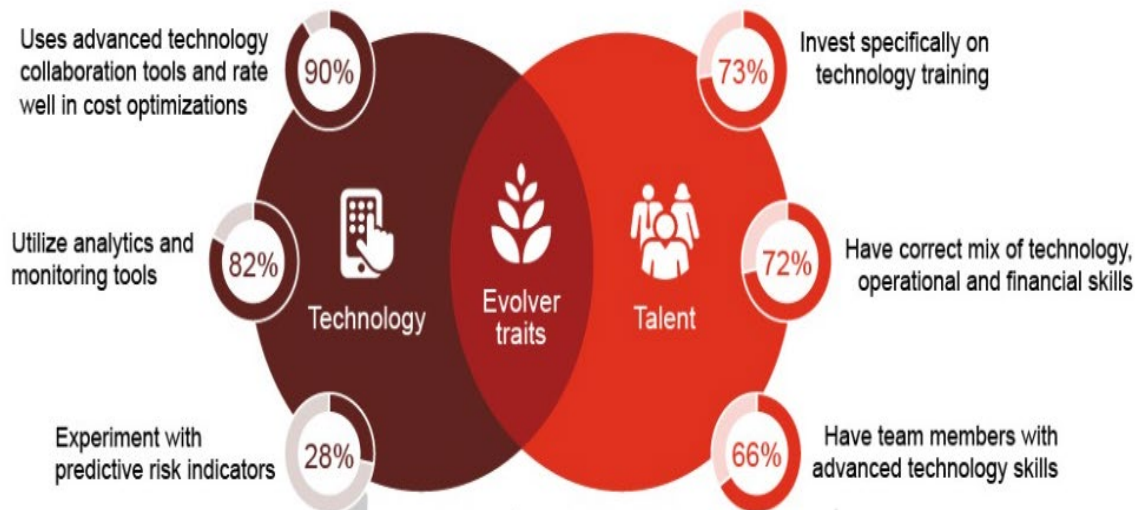
Drones

- 🌐 Early warning systems (tornados, tsunamis, fires).
- 🌐 Emergency services (missing child/pet, avalanche rescue).
- 🌐 News reporting (photos, interviews, traffic).
- 🌐 Delivery (groceries, packages, prescriptions).
- 🌐 Business monitoring (subway lines, construction, pipelines).
- 🌐 Gaming (obstacle courses, jousting, treasure hunts).
- 🌐 Marketing (spot advertising, food/product sampling).
- 🌐 Agriculture (seeding/pollination, pest control).
- 🌐 Ranching (herding, monitoring).
- 🌐 Police (drug sniffing, high-speed chases, neighborhood watch).

Multiple Uses Across Many Industries

Transformation of Internal Audit

- 14% of respondents to the PwC 2018 State of the Internal Audit Profession Study are categorized as "Evolvers" who are advanced in technology adoption.
- 75% of Evolvers are considered to be providing significant value to the organization.
- Evolvers are also successfully fusing technology and talent.



Source: PwC, 2018 State of the Internal Audit Profession Study, March 2018.

Other Things Audit Committees and Management Want from Us

- 🌐 Dashboards and other means of visual communication better serve stakeholders vs. old fashion written reports
 - *Shift reporting from a primarily backward focus to forward looking focus to support efforts to advise and anticipate*
- 🌐 More depth and diverse skills within internal audit
 - *Obtain/retain the right skills to provide insight and foresight*
 - *CAE's need more business acumen & change management experience*
 - *Strengthen relationships with peers and model the expected behaviors*
 - *Staff training must increase to keep the auditors relevant*
 - *Reframe budget discussion to risks, coverage and requirements*

Other Things Audit Committees and Management Want from Us

- ④ Partner with leaders in the business and with compliance, risk management and other functions
 - *Regularly assess company culture, ethics and compliance programs*
- ④ Conformance with the Standards (including QAR)
- ④ Coordination with second line of defense
- ④ Make sure the internal audit mission is clear and adhered too
 - *Appropriate budget/headcount tied to risk*
 - *Does internal audit add value? How? Do they focus on the right areas? Are findings and reports well done?*
 - *How do you know internal audit has the right tools such as data analytics?*

Other Things Audit Committees and Management Worry About

Fraud

- *Do we effectively segregate duties and oversee employees responsible for fund receipt/disbursements?*
- *Does our accounting system protect against the alteration of transaction information?*
- *When we add employees and third parties. Do we perform additional testing in those areas?*

Changing geopolitical, business and regulatory environments

- *Read and stay current with trends, leading practices, benchmark*

Build your personal brand and that of the department

Always Remember

- 🌐 Our ability to handle life's challenges is a measure of our strength of character – Les Brown
- 🌐 The successful business person can handle challenges and solve problems at a remarkable clip – Zig Zigler
- 🌐 Just as we develop our physical muscles through overcoming opposition (like weight lifting) we develop our character muscles through overcoming challenges and adversity – Stephen Covey
- 🌐 Success is due to stretching to challenges of life. Failure comes when we shrink from them – John C Maxwell

Change is Coming for Internal Audit

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Relationships Will Be Key

Are You Ready?

- 🌐 To make the necessary investments in yourself?
- 🌐 To create a personal strategic plan?
- 🌐 To identify and build your brand; that of the department; and that of our profession?
- 🌐 To meet the challenges of change head-on?
- 🌐 To transform the processes and tools you will need to audit tomorrow?

Opportunities for Internal Audit

Whether happening now, soon, or later, these changes will impact Internal Audit:

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- Who we hire (innovators, IT skills, change agents)

Relationships Will Be Key

The Importance of Brand

What one word describes how others perceive **You**?

- *Think and act like a business*
- *How many businesses in history with one product and one customer have been successful over the long term?*
 - One product – Yourself
 - How many customers do you have?
- *What is your product strategy?*
 - Research & Development
 - Marketing and Networking



Does Your Brand Create An Opportunity...Or A Risk?