

# Finance in the Digital Age – Risks, Opportunity and Competency

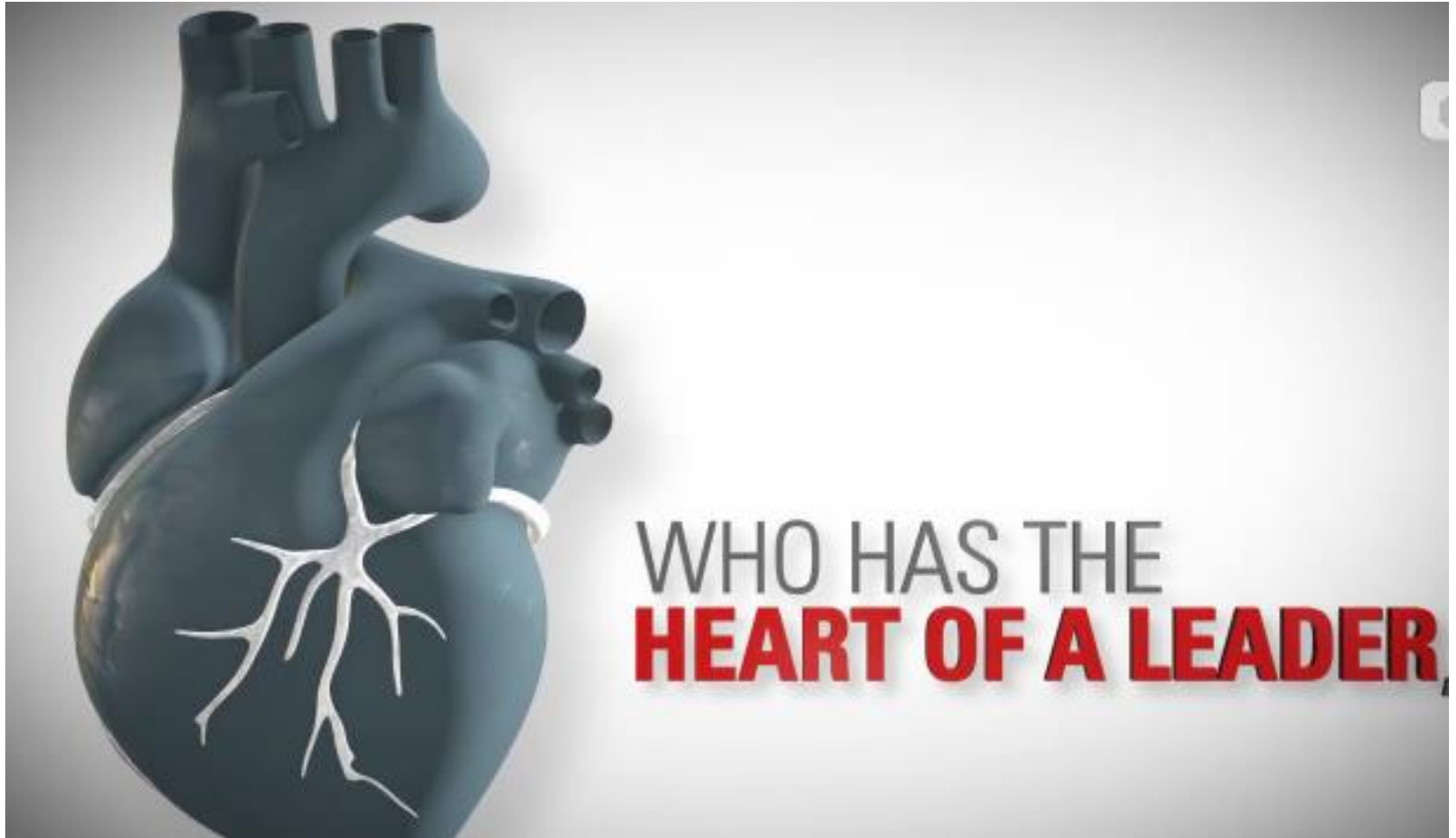
Northeast Regional Council  
September 21, 2015

Jeff Thomson, CMA, CAE  
President and CEO



The Association of  
Accountants and  
Financial Professionals  
in Business

# Finance Teams Need New Talent

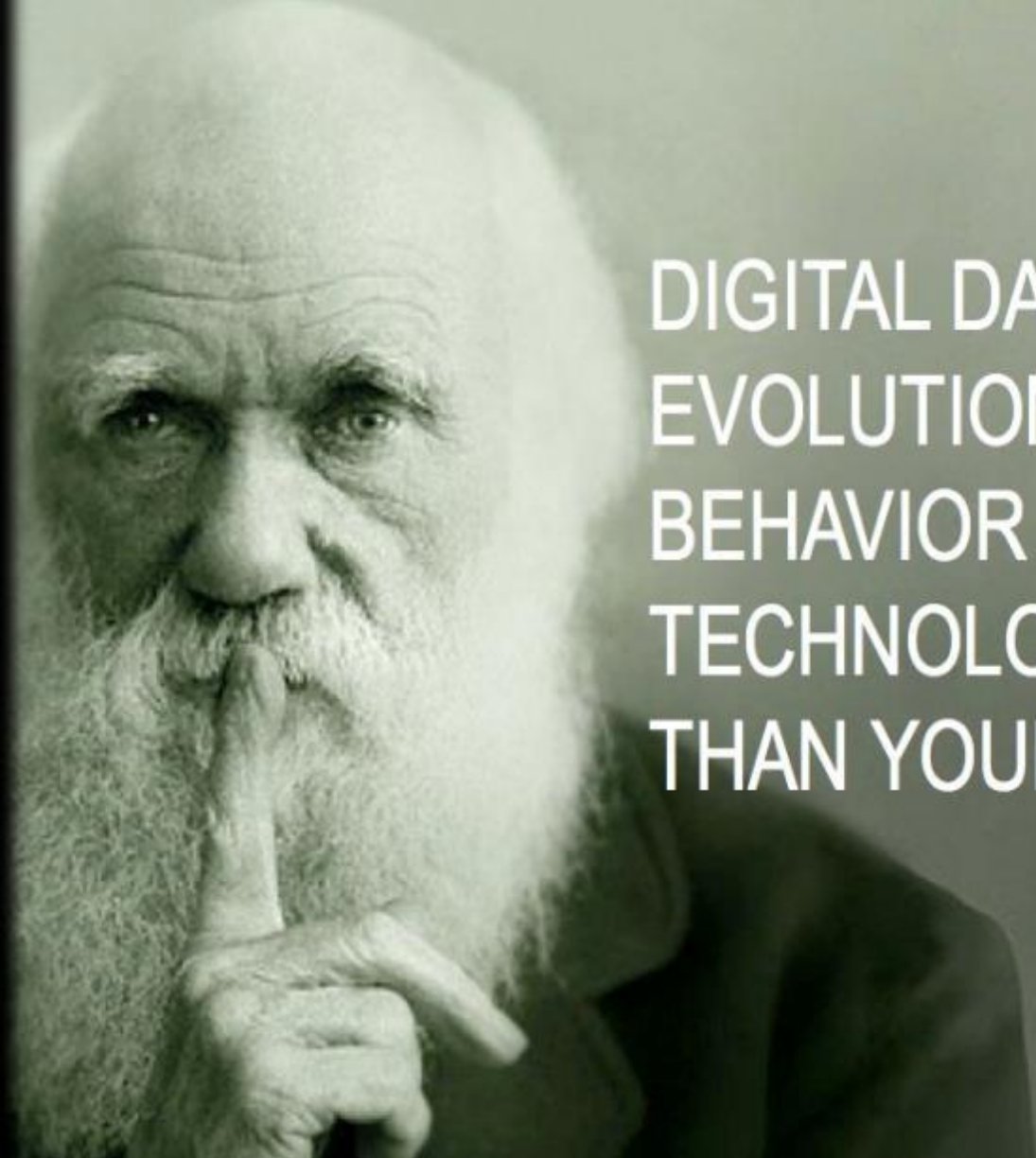


[Video](#)

# The Future of Business – The Age of Instability

1. Economic growth is inconsistent and varies by country / city
2. Revenue streams are changing
3. Everything is up for grab.  
Market share can erode quickly
4. Consumer and business strategies shift constantly
5. Productivity and employment are not always in sync





DIGITAL DARWINISM IS THE  
EVOLUTION OF CONSUMER  
BEHAVIOR WHEN SOCIETY &  
TECHNOLOGY EVOLVE FASTER  
THAN YOUR ABILITY TO ADAPT

# Times Are Changing ... Quickly

I still hear people say “In my day, I had to ...”

- Remember phone numbers (and even install one in our home)
- Ask for directions or use a fold out map
- Call radio stations to hear my song
- Use a disk to save files
- Go to a retail store to rent movies
- Research topics by going to a library
- Practice writing to get good grades for penmanship
- Survive recessions and Y2K ...

# But .. Everything Changes and Evolves



**You either evolve or you die!**



# Who Remembers Kodak

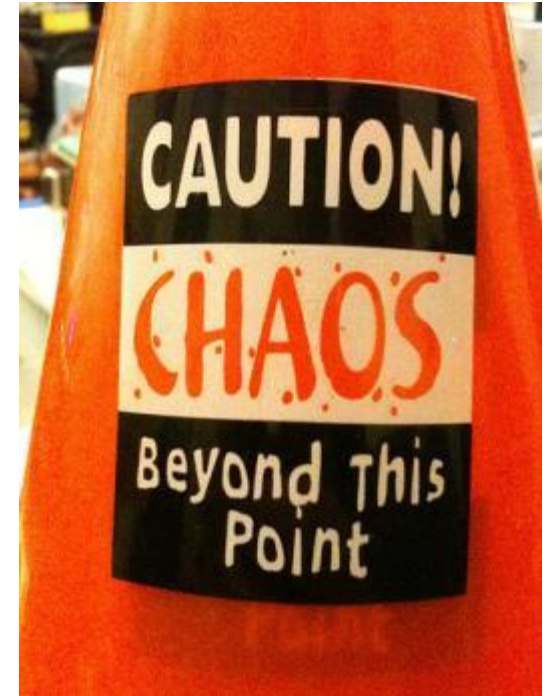


Let's pay respect to Eastman Kodak which appears to be rapidly fading into black, the victim of it's own arrogance and the forces of creative destruction raging in our digital age"

- Thomas Dawson

# So – What Are We As Finance Professionals To Do?

- Understand the changes taking place in our profession
- Prepare for the changes through training, learning and innovation
- Be a “leader” in your organization in understanding these disruptive shifts happening.





# Top Technology Trends That Matter

1. Mobile
2. Big data
3. Artificial intelligence and robotics
4. Cybersecurity
5. Educational technologies
6. Cloud
7. Payment systems
8. Virtual and augmented reality
9. Digital service delivery
10. Social technologies

# Mobile.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

- Identify and educate business on the costs and risks associated with mobile-driven trends such as 'Bring your own device'
- Create and enforce appropriate cost, data and process controls
- Identify the services and processes that work best 'on the move', and
- Exploit the knowledge of workers who have grown up using digital technologies.

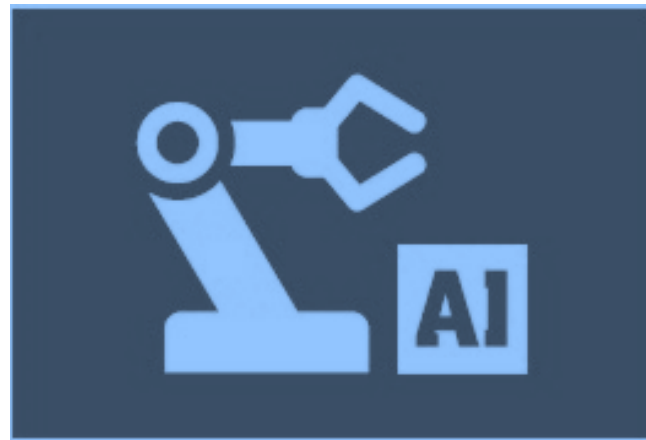
# Big data.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Explore new ways to manage, analyse, and extract value from big data
2. Ensure that data protection legislation is followed and data is used ethically
3. Apply the profession's analytical and critical skills to establish a broader more strategic remit
4. Use this broader business perspective to inform and identify the questions big data can most usefully answer and
5. Monitor the specialist software and systems that are emerging and learn how to exploit them.

# Artificial intelligence and robotics.



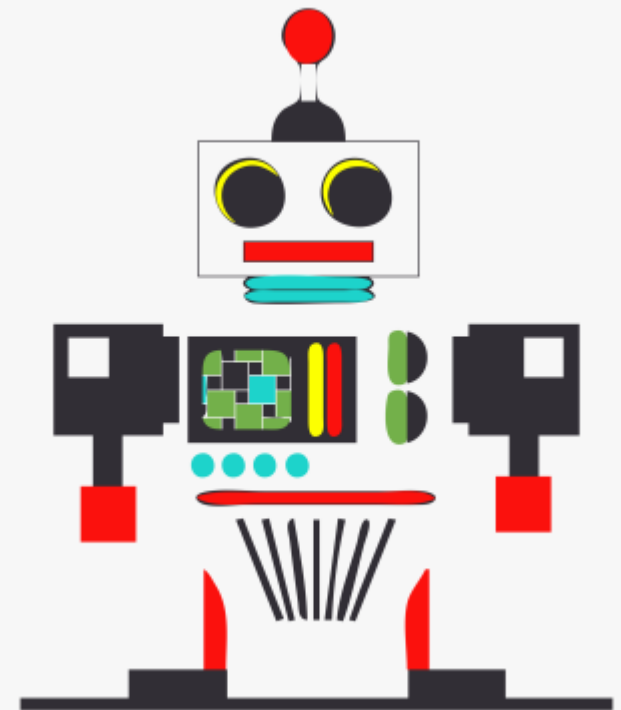


# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Carefully assess and prioritize tasks and processes for automation
2. Identify the areas of accountancy most likely to be de-skilled or commoditised
3. Up-skill to take advantage of the potential to focus on higher value tasks and services, and
4. Develop new ways to communicate and measure value and success.

# FINANCE & ACCOUNTING – NEXT TARGET FOR THE ROBOT REVOLUTION?

“The more routine tasks are stripped out of professional practices and either shipped overseas, or automated by robots or both, the wider the gulf becomes between entering an organization and gaining more advanced knowledge about what your profession entails, because all the ‘bread and butter’ tasks that entry levels are given so that they can knowledge and experience are taken away”. Chris Middleton, Editor in Chief, The Strategist



# Cybersecurity.



# Cyber Security: Risk Management Review

"There are only two types of companies: Those that have been hacked, and those that will be."

Robert Mueller, FBI Director – Retired

**It's only a question of when**



**Deloitte.**

# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. The growing threat is recognized
2. The workforce is educated/aware of existing and emerging risks and the need for vigilance
3. Constant monitoring identifies and assesses technology-related business risks
4. Defences are updated as necessary to mitigate and reduce risks



# LET'S DISCUSS ASHLEY MADISON

In the case of Ashley Madison, according to a tech article, “One tiny bright spot was that researchers said the company appeared to use a strong algorithm to encrypt users passwords. But now one group says it already decoded more than 11 million passwords because programming errors in how that encryption was applied left the information less secure than originally thought”.

But even more basic is that the top passwords uncovered so far were “123456” and other sequential numbers depending on required length like “12345”, “default” and “password”. So, one lesson here is of course on the most intelligent use of passwords and passcodes to serve as another line of defense.

# Educational technologies.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Take advantage of the more data-driven approach to education that is emerging
2. Identify the areas of accountancy most likely to be de-skilled by technology
3. Respond to the growing focus on access to information and its applications
4. Apply new technologies to support knowledge transfer within the profession
5. Identify and respond to the challenges and opportunities created by broader access to education and the profession

# Cloud.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Understand the implications of a transition from desktop software to totally cloud based software
2. Become expert in determining the total cost of cloud based services that are based on consumption instead of users
3. Data duplication, sovereignty and security will be major challenges for finance professionals given the data kept in financial systems
4. Prepare for the use of cloud based computing and data storage across the global operations and supply chain

# Payment systems.





# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Understand the implications of payments no longer an exchange of just money, but they are electronic exchanges that result in a transfer of value
2. Ensure your organization understands the transition to mobile wallets and purchases on mobile devices
3. Determine how to cost the transition to a consumer led, mobile technology mindset
4. Consider the implications of currency unions and the concept of a global currency

# Virtual and augmented reality.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Identify the niche technologies with the most potential
2. Assess the scale of business opportunities
3. Consider areas of application, such as data visualisation, where augmented reality overlays can benefit finance
4. Explore the potential for simplifying and enhancing the communication of complex finance-related information to non-finance stakeholders

# Digital service delivery.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Work with taxonomy developers and standard setters to speed up taxonomy development and improve the interoperability of standards
2. Recruit or develop the required digital literacy skills
3. Identify business and financial benefits and how to unlock them
4. Consider the implications of business, advisers and regulators becoming more connected and exchanging data automatically, and
5. Develop new propositions and services that enable the profession to add value.

# Social technologies.



# WHAT ARE THE IMPERATIVES FOR THE PROFESSION?

1. Develop the hands-on skills required to exploit them in finance
2. Potentially speed up month-end processes
3. Opportunities in opening up new routes to investment
4. Adapt to meet the changing expectations of new entrants to the finance profession and customers inside and outside the finance function, businesses and practices

# WHAT ARE THE NEEDED SKILLS FOR THE NEXT DECADE AHEAD?

- Knowledge of data extraction tools in the mining of business intelligence
- Use of tools that support data modelling and analysis
- Knowledge management skills
- Project and change management skills
- Knowledge of new approaches to funding and product development
- Ability to use technology to attract, develop and manage talent
- Knowledge of emerging payment platforms
- Better working knowledge of connectivity and IT security
- Knowledge on how applications integrate





“It is not the  
strongest of the  
species that  
survives, nor the  
most intelligent,  
but the one most  
responsive to  
*change.*”

-Charles Darwin, 1809

# IMA's Resources for Technology Enablement

- **Technology Solutions and Practices (TSP) Committee** – Formerly XBRL Committee. Educates members about technology trends through various deliverables such as webinars, articles, blog postings and speaking engagements at IMA's annual conferences and regional events. See slides for additional information about the Committee.
- **“Tech Talk” webinar series** – Special segment of IMA's Inside Talk webinar series was launched in March 2015, covering topics such as Integrated Reporting, Cloud Computing, Business Intelligence and Predictive Analytics and Data Governance. Recorded sessions can be found in IMA's webinar archives at <http://www.ima.org/programs-events/ima-webinars>
- **Technology columns in Strategic Finance** - TSP Committee members are authors of monthly columns.
- **Tech Notes** – Members receive digital updates on technology development .
- **Technology Community Page** – Page was launched in February 2015 as another forum for the TSP Committee to educate members about technology trends.
- **Statements on Management Accounting (SMAs)** – SMAs on technology enablement can be found on IMA's website at <http://www.ima.org/resources-publications/thought-leadership-new/technology-enablement>.
- **Management Accounting Quarterly (MAQ)** – The spring 2015 edition is the first to focus on technology enablement. A digital copy can be found on IMA's website at <http://www.ima.org/resources-publications/management-accounting-quarterly>
- **Strategic Partnerships** – See slides for more information about IMA's strategic partnerships with ACCA and ISACA.



# CURRENT TS&P COMMITTEE



**Chris Mishler,  
Chair**



**Brad Monterio,  
Vice Chair**



**Linda  
Devonish-Mills,  
IMA Staff  
Liaison**

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*Pem Smith, Vice Chair,*

*Board Liaison*

*Brad Monterio*

*Jim Scott*

*David Teets, Sm. Business*

*Committee Liaison*

*Liv Watson*

*Brad Hamilton*

*Dan Smith*

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*John Pollara*

*Rod Koch*

*Kim Wallin*

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*Mike Lovelace, Vice  
Chair*

*Chris Mishler*

*Glenn Murphy*

*Jeff Henson*

*Mike Magato*

*Brad Monterio*

*Barry Nathan*

*Ashley Gibson*

*Mike Willis*



# TS&P BLOG (ON TECHNOLOGY COMMUNITY)

- Launched Feb 16, 2015
- Achieving weekly postings
- 84 members so far, 1000s of views of blog postings (mostly external)
- Topics include:
  - Top techs and trends
  - TS&P themes
  - Topics of TechTalk webinars
  - Topics of Strategic Finance articles
  - Topics of other TS&P deliverables
  - Current tech issues for management accountants



# Technology Trends monitored by TSP Committee

Cloud Computing

Mobile

Analytics

Big Data

IT/Data Governance and Leadership

Security

Internet of Things

Smart Machines and Automation



# IMA's Strategic Partnerships

## •ACCA

- ❑ IMA and ACCA officially launched “The Future Today,” a new signature research program focused on the future of the global accounting profession. This comes following our joint announcement last November at World Congress of Accountants.
- ❑ The program is anchored by a new IMA/ACCA website, [www.futuretoday.com](http://www.futuretoday.com) and includes our first piece of signature research, SoMoClo (Social, Mobile, and Cloud). Future research topics will include cybersecurity, data lifecycle management, and more.
- ❑ This announcement marks the next stage of IMA's partnership with ACCA and our presence as a global thought leader.

## •ISACA

- ❑ ISACA has expressed an interest in educating IMA members about its research tool to learn more about technology trends. A webinar under IMA's Inside Talk webinar series about the tool took place during July 2015. A recorded session can be found in IMA's webinar archives at <http://www.imanet.org/programs-events/ima-webinars>.



# IMA RESOURCES – SPECIAL TECH ISSUE



# Your Turn!

- Does your company have a budget for technology investments?
- How does your company make an assessment on technology needs?
- How does your company provide training for technology enablement?
- Which topics would you like to learn more about?
  - ☐ Cloud Computing
  - ☐ Big Data
  - ☐ Data Governance
  - ☐ Cybersecurity





Thank You

Questions?



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