IESBA
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Technology & Fraud Risk

Automation Bias & My Fraud Case

Agenda

Knowledge Gap & Education Needs

Risk Management & the Banking Crisis

Emerging Tech and the Rise of Artificial Intelligence

Financial Statement Fraud Risk Post-Pandemic
Potential ethics and technology-related challenges with the proposed changes to the standards.

- Technology requirements
- Fraud detection requirements
- Auditor to remain “alert”
Technology

- Reliance on systems & automation
  
  \textit{40\% inaccuracies (Gartner)}

- Automation Bias – IPE
- Databases
- Data Analytics
- Metadata

Fraud

- Fraud Knowledge \neq \text{Common Sense}

Education & Training

University Accounting Degrees

- Limited technology and fraud education

CPA & CA Exams

- Limited fraud, technology and data analytics requirements
Is it **ethical** to use technology you don’t understand to reach a conclusion that investors, banks, analysts, insurers, etc. *rely* on?

COSO and US Federal Sentencing guidelines as a reference?

Key is to “**demonstrate**”
The problem with banks is ineffective risk management
Silvergate Bank - March 8, 2023
Silicon Valley Bank – March 10, 2023
Signature Bank – March 12, 2023
Credit Suisse – March 14, 2023
First Republic – April 28, 2023

$42B run on the bank in a single day
1. 97% of deposits were uninsured
2. Invested heavily in Treasury bonds. Then interest rates increased – 55% of deposits in bonds = $17B in loss
3. Ineffective risk management – no CRO & zero hedging
4. Run on bank, social media & concentrated customer base
$10B run on the bank & ↓ 25% stock $ in a single day
Barney Frank of the Dodd-Frank Act sat on the board
1. 20% of deposits in cryptocurrency
2. Customer reaction to Silvergate and SVP
3. 90% of deposits ($79B) were uninsured, and the bank had a heavily concentrated customer base
4. Zero risk management playbook for cryptocurrency

Saudi National Bank refused to keep funding
Borrowed $54B from Swiss National Bank - Sold to UBS
1. Long history of scandals – money laundering, tax evasion, bribery, defrauding investors, corporate espionage, so on...
2. Poor risk management
3. Material weaknesses in the control environment – PWC adverse opinion
Root Cause

1. Not prioritizing risk management
2. Not implementing proper control environments
3. Technology – old, antiquated technology that cannot support today’s needs and requirements
4. Cost – bottom line over risk management

Accountants test controls and assess the effectiveness of the control environment, but are they effectively assessing strategic risk, risk appetite, and risk capacity?

Is there an ethical responsibility?
Accountants rely on technology to do their work but do not always fully understand the technology they are relying on.

Are you acting ethically or with integrity if you do not have the competency to do the work?
Example - Duplicates

Passed internal & external audit for 8 years.

Potential Challenges for Accountants

Metadata
Databases
Data Analytics
Schemas – ERDs

According to Gartner – 40% of enterprise data is inaccurate.

According to Experian – 32% is inaccurate
Automation bias is a problem.

Cryptocurrency
MARKET: SEPT 2017 – TUESDAY JANUARY 19, 2021

COMPARISON: SEPT 2017 – TUESDAY JANUARY 19, 2021
COMPARISON: MARCH 2021 – MARCH 2023

FAILURES & FRAUDS

1. BitConnect – Ponzi Scheme $2.4B
2. OneCoin – Ponzi Scheme $4B
3. Celsius – 1.2B
4. Bitclub – MLM/Ponzi $722M
5. Axie Infinity / Sky Mavis – Hacked $615M
6. Pincoin – MLM / Ponzi $870
7. Thodex – Founder embezzlement $2B
8. Mining Capital Coin – Investment fraud $62M
9. SushiSwap – Founder embezzlement $13M
10. Squid Token (yep, named after the show) – nonaccomplice $3.36M***

***$ in USD
FAILURES & FRAUDS

11. Day of Defeat – Rug Pull (10,000,000X price increase) $1.3M
12. Bored Bunnies – NFT start-up $20M
13. Baller Apes Scam – NFT fraud $100M
14. Frosties – NFT Rug Pull $1.3M***
15. Evolved Apes – NFT Rug Pull $2.7M
16. Orfano & OrfanoX Tokens – Charity token $Unknown
17. Save the Kids – pump-and-dump $30K (FaZe Clan members)
18. OpenSea Discord – NFT Site Hacked – 10 users scammed
19. Quadriga – Founder embezzlement - $250M (founder believed to fake his own death)
20. FTX - $ ???

***$ in USD

THE HACKS

1. Ronin – $625M
2. Binance – $570M
3. Wormhole – $325M
4. Nomad – $190M
5. Beanstalk – $182M
6. Wintermule – $162M
7. Mango Markets – $112M
8. BNB Smart Chain – $110M
9. Harmony Bridge – $100M
10. Bitfinix – $72M
11. Upbit – $48.5M
12. Bithumb – $31.5M
13. Bitpoint – $30M
14. Altsbit – $70K
15. VinDAX – $500K
16. Bittrue – $5M
17. GateHub – $10M
18. Binance – $40M
19. DragonEx – $7M
20. Cryptopia – $3

***$ in USD
The Problems

- Extreme price volatility
- Lack of knowledge
- Unregulated
- Some cryptocurrencies are recognized by the SEC as securities – others are not

- Not recognized by IRS as a legal currency
- If you can’t use it at Target, it is still speculative
- Blockchain
WHAT BLOCKCHAIN IS...

- A PROCESS OF RECORDING AND SECURING DATA ACROSS MULTIPLE PARTIES
- RECORDS TRANSACTIONS AND TRACKS ASSETS
- ASSETS CAN BE TANGIBLE (CASH, A HOUSE) OR INTANGIBLE (PATENTS, INTELLECTUAL PROPERTY)
- AN IMMUTABLE AND IRREVERSIBLE DISTRIBUTED LEDGER
**HOW IT WORKS..**

- **Blockchain is an online open ledger**
- **Can be used by multiple parties**
- **The ledger consists of a growing list (chain) of records (blocks) that are linked together (blockchain)**
- **Each block has a cryptographic hash (unique identifier) and the hash of the previous block**
- **Each block has a permanent time stamp**

**THE BIG CHALLENGES**

1. Use of *modified* blockchain systems for permissioned or enterprise use (non-public) – distributed ledgers
2. Lack of *clear-cut* regulations
3. Securities *vulnerabilities*
4. *Compatibility* with existing core systems and processes
5. GDPR *Compliance*
6. Anonymity
USES FOR BLOCKCHAIN BEYOND CRYPTOCURRENCY

- HEALTHCARE (RECORDS)
- TRADING - DERIVATIVES
- EDUCATION
- TRAVEL
- SMART CONTRACTS
- ALCOHOL & TOBACCO
- REGULATORS – SEC
- GOVERNMENT AGENCY CONNECTIONS

- RETAIL
- MUSIC INDUSTRY
- SUPPLY CHAIN
- HR ONBOARDING
- INTELLECTUAL PROPERTY RECORDS
- VOTING
- REAL ESTATE
- DECENTRALIZED FINANCE (DeFi)

Medical Records (Permissioned)

- MedRec
- Medicalchain
- MediLedger
- Hashed Health
- Guardtime
- Patiencyory
- SimplyVitalHealth
- MyHealthMyData

Decentralized platforms that allow secure, fast, and transparent exchange and usage of medical records. By using blockchain, these platforms provide the patient full control over their data and ensure that medical professionals can access up-to-date and consistent patient information.
• Tracr was developed to address concerns around "blood diamonds." Blockchain technology is leveraged for diamond provenance and traceability to ensure the authenticity and ethical sourcing of diamonds.
• Diamond characteristics and laser inscriptions are used to create a digital footprint which is used to track the diamond through the supply chain to sale.
• This requires the initial recording to be honest and accurate for it to work. This could be used to legitimize blood diamonds.
AI is simply using a computer to perform tasks that normally require **human intelligence**.
Things ALREADY happening with ChatGPT

- Phishing emails
- Creation of malware and viruses
- Data encryption (ransomware)
- Decrypt data (protected data)
- Real-time cryptocurrency payments for dark web markets
- Romance fraud
GOOD phishing emails

Bye, bye grammatical errors and diction nuances.

- alerts@chase.com or no-reply@chase.com

1. Urgent Tone: The email should state that the account has been compromised and request immediate action.
2. Personal Information: The email should address you by name or reference account information specific to your account.
3. Authenticity: The email should include a statement that Chase takes fraud seriously and is taking steps to protect your account.
4. Specifics: The email should provide specific information about the issue, such as the date and location of the unauthorized transaction.
5. Call to Action: The email should instruct you to contact Chase immediately to report the issue and take action to secure your account.
6. Contact Information: The email should provide clear and direct contact information for Chase, such as a phone number or link to their website.

Note: It’s important to keep in mind that phishing scams often attempt to mimic legitimate emails from banks and financial institutions. Always verify the authenticity of an email before clicking on any links or providing personal information.
ChatGPT can be used to deceive:
• Contracts
• Proof of payments (receipts)
• Authorizations
• **Anything** that requires documentation

How Accountants can **Use AI**

• **Answering Queries**
• Explaining Complex Concepts
• Continuing Professional Development
• **Data Analysis Guidance**
• Drafting and Proofreading

• Guidance on Software and Tools
• **Trend Analysis**
• Ethical Dilemmas
• Risk Management
• Networking and Career Development
AI and ChatGPT can be a valuable tool for accountants, but it’s important to remember its limitations. It should not replace the need for professional judgment, peer review, or consultation with experts in specific fields.

Machine Learning includes “creating”

The information is only useful for those already knowledgeable enough to validate it.
The Ethical Concerns

- Reliability and Accuracy
- Transparency
- Professional Competence and Due Care
- Data Privacy
- Job Displacement
- Bias and Fairness
- Accountability
- Continuous Learning and Adaptation
- Dependence on Technology
- Intellectual Property and Proprietary Algorithms
- Economic and Social Implications

How Accountants can Minimize Risks

- Education and Training
- Due Diligence
- Transparency
- Audit Trail
- Bias Checks
- Data Privacy (GDPR)
- Human Oversight
- Stakeholder Collaboration
- Clear Accountability Protocols
- Code of Ethics
- Engage with Regulatory Bodies
- Continuous Monitoring
- Diversity in Development
- Feedback Mechanisms
Financial Statement
Fraud Risk Post-Pandemic

Anyone still own an iPhone 4?
The pandemic and resulting supply chain issues created unique and unprecedented challenges for accountants.

Decisions had to be made regarding estimates and valuations in reported financials for which there was no history, experience, or guidance.

We had a lumber shortage.
Accounting estimates are generally dependent on:
1. The Accountant’s specialized knowledge and judgment
2. The organization’s history
3. The narrative

What % of reported information in an organization’s financial statements is based on estimates?
For one of the largest airlines it is >20%
$300M in receivables and 5% bad debt allowance
$285M Net Accounts Receivable

What if it should really be 15%?

$300M in receivables and 15% bad debt allowance
$255M Net Accounts Receivable

Common Ratios
Current Ratio 1.2
Quick Ratio 0.9
There will be two periods for potential accounting issues.

1. During the past three years.
2. When accountants and organizations realize they got it wrong.

The lack of history, accountant experience and guidance for what occurred during the last few years will lead to financial statement challenges and the potential for financial statement manipulation and fraud.

The vast majority of large-scale financial statement frauds started with the manipulation of estimates.
Accountants should be expecting mistakes to have been made with estimates and valuations and intentionally looking for them.

Standards and regulations take a long time to provide guidance.
2020 & 2023

Depending on the size of the bank

2008 -> 2016 -> 2020 -> 2023

12 – 14 years for the accounting to change.

Conclusion - Technology & Fraud Risk

Professional Accountants are behind on technology and are playing catch-up. This can lead to an inability to do their job. Education and training is the solution.
Mary Breslin is the Founder of Verracy and specializes in Internal Audit transformations, Operational and Financial Auditing, Fraud Auditing & Investigations, and Corporate Accounting.

Ms. Breslin’s career spans over 20 years in Internal Auditing, Management and Accounting for companies such as ConocoPhillips, Barclays Capital, Costco Wholesale, and Boart Longyear. With significant International experience, she has managed audit programs in more than 50 countries.

Most recently, Ms. Breslin held the title of Vice President and Chief Audit Executive where she transformed a checklist audit function into a value-add audit department delivering measurable business results. Mary was an early adopter of analytics and has been utilizing data analytics in audit and fraud work for over 15 years.

Through her expertise, she has helped large global organizations leverage analytics to increase coverage, automate continuous auditing and monitoring, and actively fight fraud. Additionally, Ms. Breslin has conducted major fraud investigations on multiple continents including large scale federal cases.

Ms. Breslin attended Rutgers University and received an MBA from the University of Phoenix while living and working overseas. She is a member of the Institute of Internal Auditors (IIA), American Institute of Certified Public Accountants (AICPA), ISACA, the Society of Corporate Compliance (SCCE), and the Association of Certified Fraud Examiners (ACFE) and is currently an instructor and conference speaker for the IIA, The ACFE and ISACA.