



The Impact of AI on Government Finance

The Future Ready Government Finance Officer

- Understands the environment impacting the government
- Anticipates emerging technology trends
- Adapts to evolve and grow service delivery

92%

of CPAs are not
future ready

* CPA.com study, 2015



Financial data explosion



12 ZB
FSI DATA
CREATED IN 2018

0.5 %
OF AVAILABLE DATA
USED BY BUSINESSES

AI and the democratization of analytics



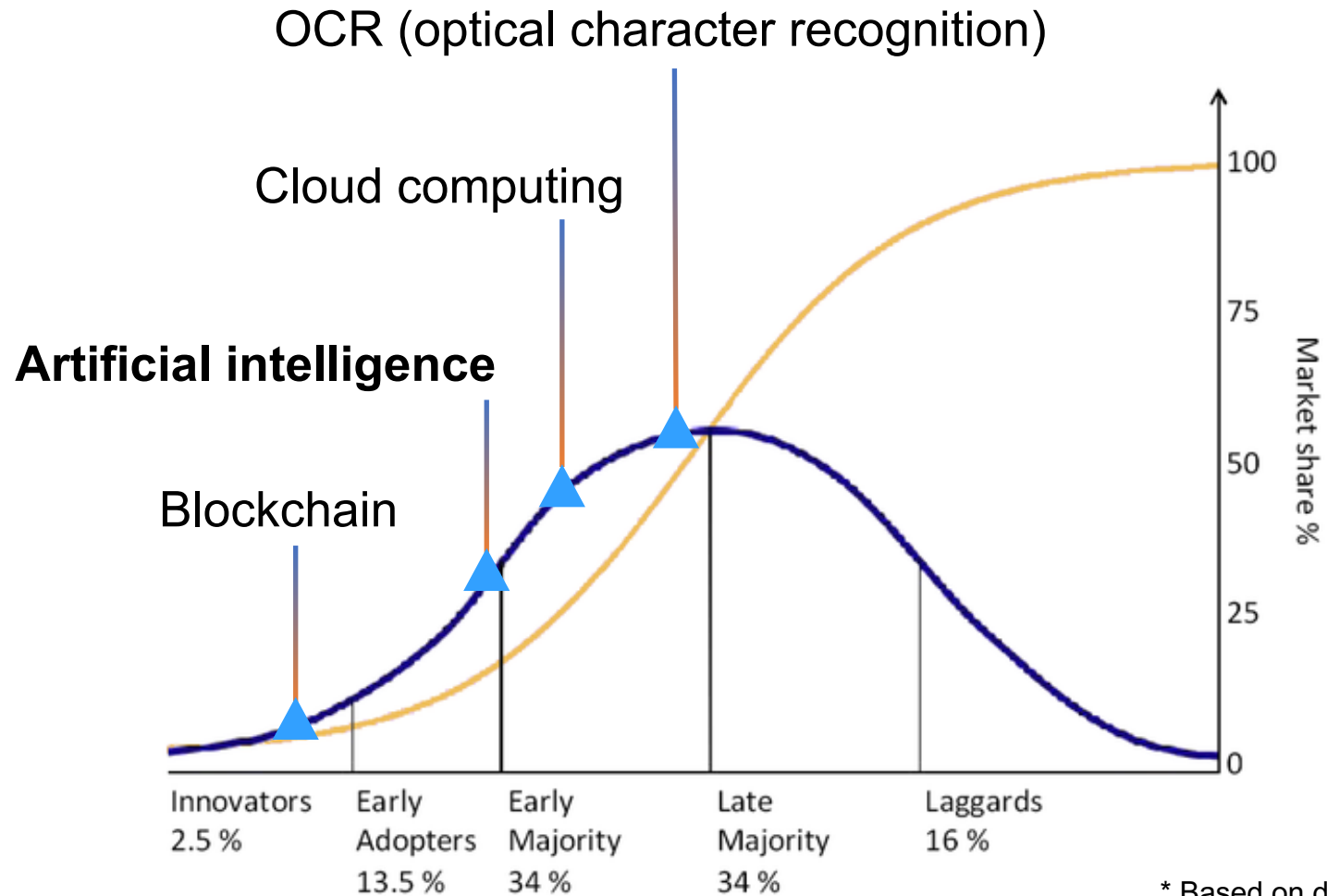
“

The core currency of any business will be the ability to convert their data into AI that drives competitive advantage.

”

-Satya Nadella, CEO, Microsoft

Disruptive technologies in accounting



How AI is transforming audit

**Traditional audit is rules-based,
with limited coverage:**



Significant private firm misstatements

Supreme Court says Livent auditors liable but sets conditions

<https://www.theglobeandmail.com/report-on-business/supreme-court-says-livent-auditors-liable-but-sets-conditions/article37393018/>

BT loses almost £8bn in value as Italy accounting scandal deepens

Shares plunge 21% after bill for mismanagement at Italian division almost quadruples to £530m

<https://www.theguardian.com/business/2017/jan/24/bt-loses-7bn-in-value-as-italian-accounting-scandal-deepens>

PwC's failure to spot Colonial fraud spells trouble for auditors

<https://www.ft.com/content/c2cc45d6-f1f6-11e7-b220-857e26d1aca4>

The Guardian view on Tesco's auditing debacle: a systemic shambles?



<https://www.bbc.com/news/business-44201251>

Fraud and Errors in Government

US Justice Department to curb bid-rigging in government purchases

The U.S. Justice Department plans to be more aggressive in pressing antitrust charges against companies that have rigged bids for government contracts, the agency's antitrust chief said on Thursday.



FILE PHOTO - The U.S. Department of Justice building and the J. Edgar Hoover Federal Bureau of Investigations (FBI) Building (L) are seen in Washington, U.S., February 1, 2018. U.S. REUTERS/Jim Bourg

B News · Midlands News · HS2

£56 billion HS2 high speed rail project is at risk of 'fraud and financial errors'

MPs warn of poor financial controls after HS2 Ltd handed over £1.76 million in unauthorised redundancy payments

Canada's embassy in Haiti taken for \$1.7 million by gang of swindlers and fraudsters, internal report reveals

A probe uncovered systematic fabrication of documents, fraudulent bills, forged signatures, misdirected cheques and more



POLITICS

Billing for orange juice was a mistake



Financial loss – known vs unknown

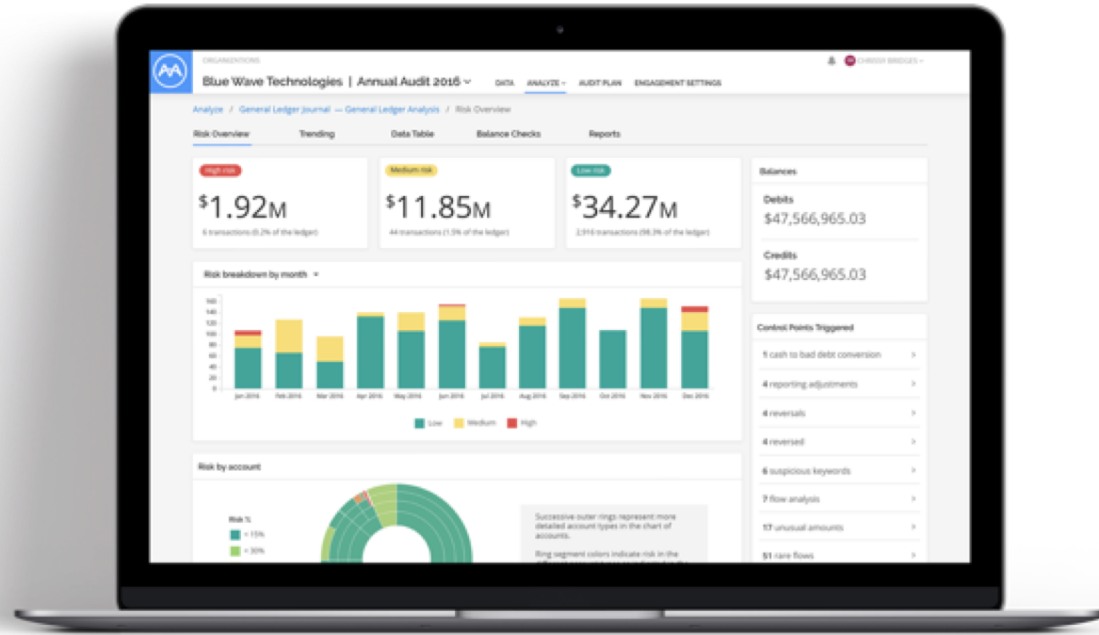


Source: Association of Certified Fraud Examiners, Institute of Internal Auditors

AI is the Solution



AI: The 4th Industrial Revolution



Powered by machine learning and AI



Zero scripting, zero training

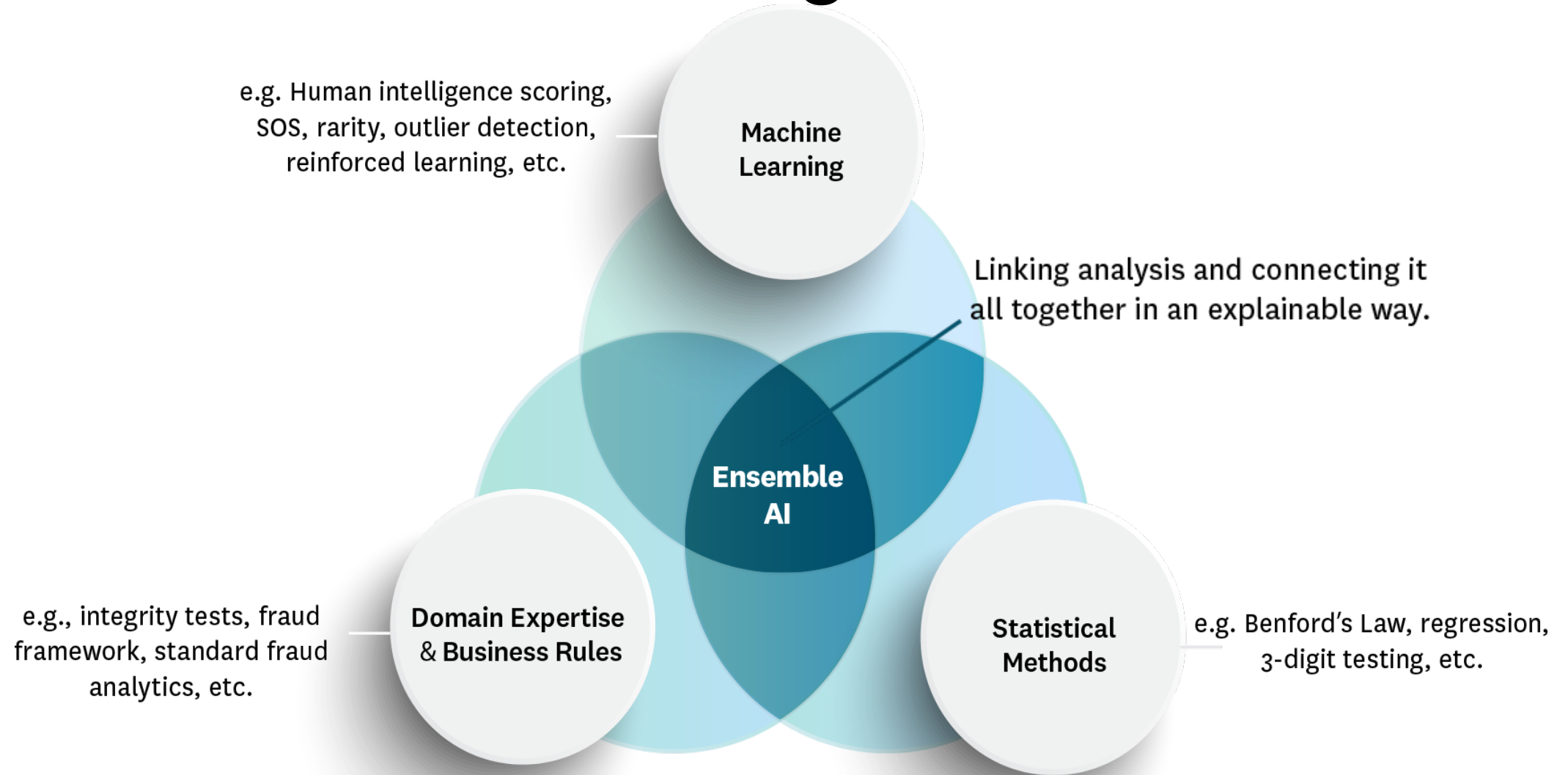


Identify risk, in seconds



100% data analysis

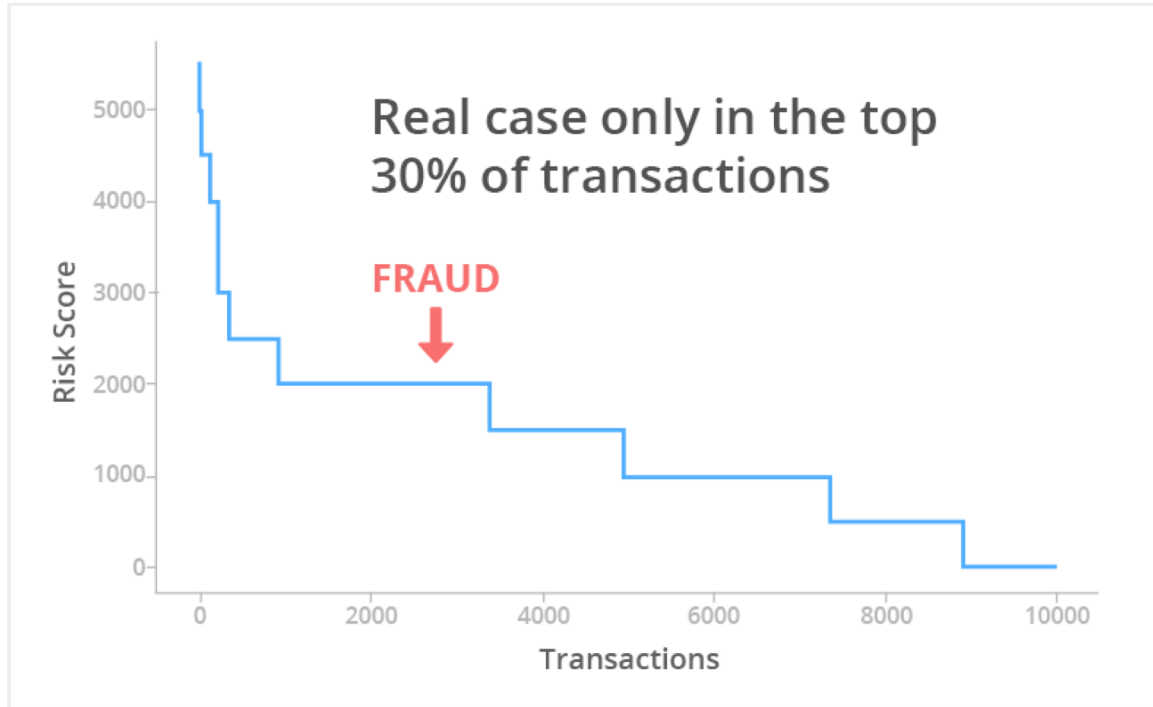
How AI is transforming audit



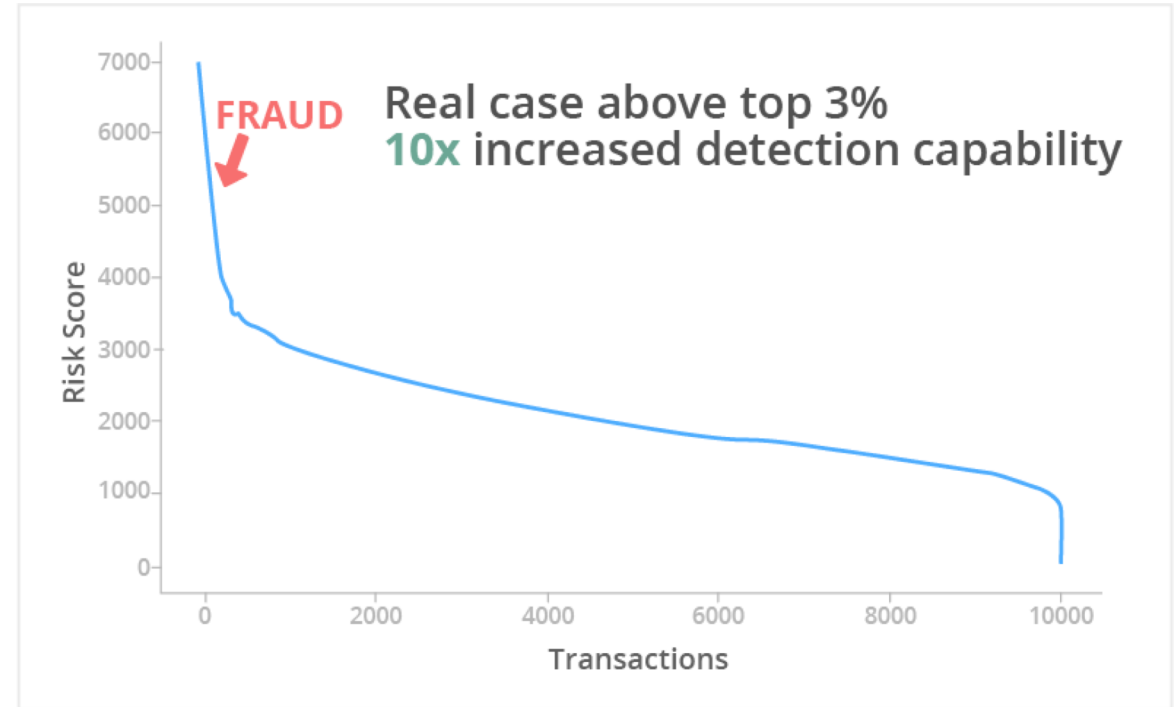
No More Random Sampling: AI examines 100% of the data

Rules only versus machine learning

Rules alone: Ranked Risk Score



Machine learning: Ranked Risk Score



Adapting AI to government finance

AI is a cultural change

To scale up AI, governments must make 3 shifts

- From siloed work to interdisciplinary collaboration
- From experience-based, leader-driven decision making to data-driven decision making at the front line
- From rigid and risk-averse to agile, experimental, and adaptable

**Harvard
Business
Review**

“Building the AI-Powered
Organization”

August 2019

Adapting AI to government finance



Phase 1:

Explore & engage



Phase 2:

Enable & expand



Phase 3:

Embed & empower



Phase 4:

Evolve



Change Leadership



Training & Support



Competency & Capacity
Development



Network & Thought
Leadership

Current applications of AI to government



Office of the
Auditor General
of Canada

Bureau du
vérificateur général
du Canada



Global Affairs
Canada
Affaires mondiales
Canada



National Audit Office



- Government financial audit
- Monthly book close
- Grants & contributions analysis (Fund accounting)
- Candidate contribution & expense analysis
- Regulatory / Counterparty Trade Surveillance

BANK OF ENGLAND



“

*AI won't replace auditors, but
auditors that use AI will
replace those not using AI*