How the World’s First Auditor Based on Artificial Intelligence Is Driving Change in the Auditing Process
Financial Loss Due to Human Error is Severe

What we see & know
~$200B annually

What is unknown and not found today
~$3T annually

Human Error + Intent = FRAUD

Source: Association of Certified Fraud Examiners, International Institute of Auditors
Audit Firms Are Not Finding Fraud

BT 21% stock drop in 24-hours

Extreme angry about Italy fraud: BT CEO

BT CEO Gavin Patterson has told CNBC how "extremely angry" he is about the accounting scandal in his company's Italian arm, adding that "that type of fraud has no role to play in our business at all."
Current Accounting Techniques Are Ineffective

- 40% Fraud caught by mistakes and tips
- 3% Fraud caught by analytics
- 32 Months to detect fraud

“Sampling is a Human Coping Mechanism for Big Data”
- Robin Grosset, MindBridge Ai CTO

Source: Association of Certified Fraud Examiners, International Institute of Auditors
MindBridge™ Ai is an analytics company using artificial intelligence to uncover errors in financial data.
MindBridge is an Extensible AI Engine to Solve Targeted Problems

Learned anomaly examplars

User feedback

Control point insights

CPI CPI CPI CPI CPI CPI

Anomaly detection platform

Smart ingestion
Interactive analytics
Scalable compute platform

Data science baked in + extensible

Disparate corporate data
MindBridge Ai Auditor™ Uncovers Material Irregularities Using a Hybrid Approach

Domain Expertise & Business Rules
- Integrity tests, fraud framework, standard fraud analytics

Statistical Methods
- Benford’s law, regression & 3-digit testing

Machine Learning
- Humint Scoring, SOS, rarity, outlier detection, reinforced learning

Cross Correlation
- Sanction Lists, Credit Databases, proprietary negative database
Uncovering Material Irregularities

Results…

“4 of 5 data points your system found were confirmed cases of fraud. Very impressive. Great job.”

MindBridge Audit Client
Machine Learning 10x More Effective

Recent Real-World Example:

In 1.6M Transactions, flagged interesting transaction
- Machine Learning 34th
- Rules ~31,000th

900X improvement
MindBridge Ai Auditor
Avoiding the Black Box — Making AI Explainable
How it all comes together
FinTech Accelerator Proof of Concept

MindBridge Analytics Inc. - big data anomaly detection tool

Background

The Bank of England’s FinTech Accelerator works with innovative firms and new technologies. Data analytics and data cleansing techniques are key areas that the Bank of England is examining through its FinTech Accelerator. The Bank gathers and analyses a large quantity of data from a variety of sources including banks, building societies, credit unions, insurers and mortgage companies. In addition to these traditional sources we also draw on less structured data including textual and contextual sources. Analysis of these data informs every aspect of the Bank’s activities, including macroeconomic and macro prudential policy making, and front line supervision.
Yet Scandal and Financial Crisis Continues
* “…auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud…”*
AI will not replace auditors, but AI will make auditors that don’t use AI redundant.
Thank you!

Questions?

Contact: jcraig@mindbridge.ai