

# Artificial Intelligence

Outsmarting Financial Crime



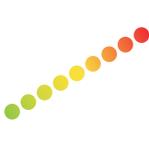
## What is Artificial Intelligence (AI)?

A machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. <sup>1</sup>

Bayesian Belief Networks mimic human interpretation of cause-effect relationships using subjective evidence to draw a conclusion—making them ideally suited to AML monitoring.



Integrates and weighs multiple sources of evidence to make risk determinations



Uses Fuzzy Logic to stretch risk across a spectrum



Differs from rigid if/then rules and yes/no answers



Allows systems to automatically assess risk based on numerous factors

## The Types of Artificial Intelligence

- ROBOTIC PROCESS AUTOMATION (RPA)**  
The simplest and most widely adopted form of AI used to automate repetitive tasks.  
**Most often used:** to reduce administrative work.
- MACHINE LEARNING**  
Machine learning models are designed to make predictions from data without being explicitly programmed.  
**Most often used:** to reduce false positives.
- DEEP LEARNING**  
A subset of machine learning, these networks can learn unsupervised from unstructured or unlabeled data.  
**Most often used:** to identify new typologies.
- GENERATIVE AI**  
Generative AI is trained to understand unstructured, often qualitative data, generating content in unstructured forms, such as text or images.  
**Most often used:** to reduce operational cost of investigations.

## The Emergence of

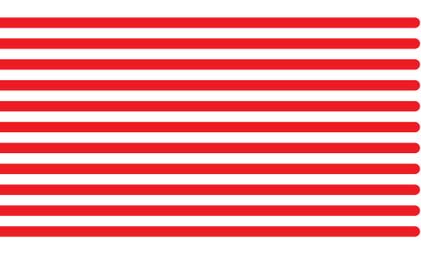
Generative AI

In recent years, large language models (LLMs) a form of generative AI, have captured public attention. LLMs are deep learning AI models designed to recognize, summarize, translate, predict and generate text.



*“The integration of AI offers the [financial] sector increased efficiency, precision, and adaptability, as well as the potential to bolster the resiliency of institutions’ systems, data, and services.” <sup>2</sup>*

Managing Artificial Intelligence-Specific Cybersecurity Risks in the Financial Services Sector U.S. Department of the Treasury March 2024



## Artificial Intelligence, Real Benefits for Fighting Financial Crime

AI is a powerful, dynamic solution that offers benefits to help fight modern financial crime.

### How AI increases efficiency and effectiveness:



*“The pace of innovation driving new threats and the growing complexity of financial crime and global regulatory frameworks are creating an increasingly challenging environment for financial institutions.” <sup>3</sup>*

Nasdaq Verafin 2024 Global Financial Crime Report



## Growing Prevalence of AI to Fight Financial Crime

Encouraged by peer adoption and industry recommendations, financial institutions are rapidly deploying AI solutions for financial crime management.



**70%** of respondents expect their organization to increase spending on AI or machine learning in the next 1-2 years. <sup>4</sup>



In 2024, **7 in 10** financial institutions are using AI and machine learning to strengthen their efforts to combat money laundering, bank fraud and other illicit activities. <sup>4</sup>



By 2026, the use of Artificial Intelligence and machine learning in anti-fraud programs is expected to **nearly triple.** <sup>5</sup>

### Sources:

- Cornell Law School <https://www.law.cornell.edu/uscode/text/15/9401#3>
- Managing Artificial Intelligence-Specific Cybersecurity Risks in the Financial Services Sector U.S. Department of the Treasury March 2024, <https://home.treasury.gov/system/files/136/Managing-Artificial-Intelligence-Specific-Cybersecurity-Risks-In-The-Financial-Services-Sector.pdf>
- The 2024 Global Financial Crime Report, Nasdaq Verafin <https://www.nasdaq.com/global-financial-crime-report>
- PYMNTS <https://www.pymnts.com/news/security-and-risk/2024/seven-in-10-financial-institutions-use-ai-and-ml-to-combat-fraud/>
- ACFE Anti-Fraud Technology Benchmarking Report <https://www.acfe.com/fraud-resources/anti-fraud-technology-benchmarking-report>

### More Resources:

**Blog**  
**AI & Large Language Models: Great Power Requires Greater Responsibility**

Large language models have emerged as a new application for AI, propelled by breakthrough research in an age of unprecedented information. As bad actors seek to take advantage, Verafin is responsibly harnessing AI to fight back.

**Archived Webinar**  
**Generative AI: How it can Strengthen your AML Program**

With the financial industry buzzing about generative AI and ChatGPT, there is also significant debate over the risks and rewards of AI. What has changed in the AI space? How can financial institutions integrate innovative AI approaches to increase efficiency and strengthen their AML programs?

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