



Session Code: accpmc0327

SPRING CONFERENCE 2024

Accounting / Performance Measurement Committee Joint Session

Arizona Biltmore - Phoenix

March 27, 2024



Session Code: accpmc0327

A NEW ERA

Is the future of how we report and perform analytics already here?



David Fisher
KPMG
Associate Director
Audit Innovation



Amy Pearce,
Moderator
Managing Director SS&C



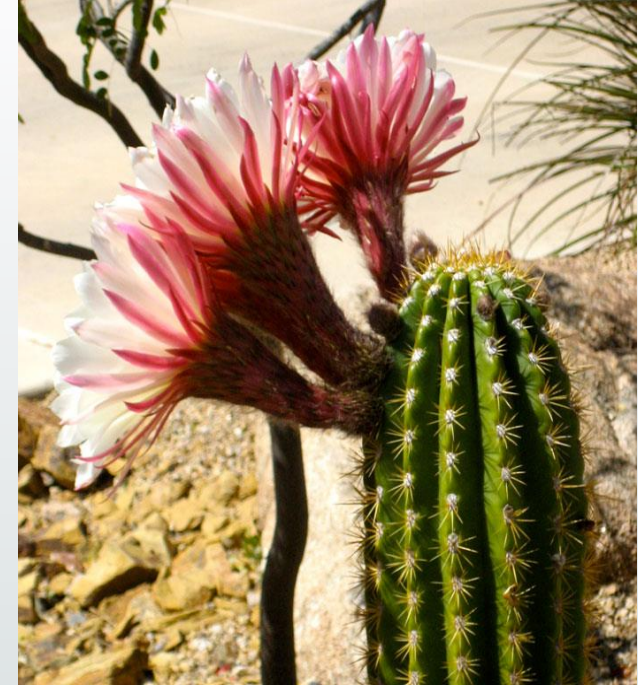
Henry Lindemann
BlueFlameAI
Co- Founder/ COO



Samantha King,
Moderator
Executive Director
JPMorgan



Taylor Odegard
NavigatorCRE
Co- Founder – Chief
Operating Officer



What's your experience with Machine Learning and Artificial Intelligence?

1. I use AI to aid in my job responsibilities.
2. I use AI for things unrelated to my job.
3. What even is AI?

<https://cvent.me/0PM9>



Generative Artificial Intelligence

NCREIF – Performance/Accounting Committee Session

—
March 2024



David Fisher

Associate Director,
Audit Innovation
davefisher@kpmg.com

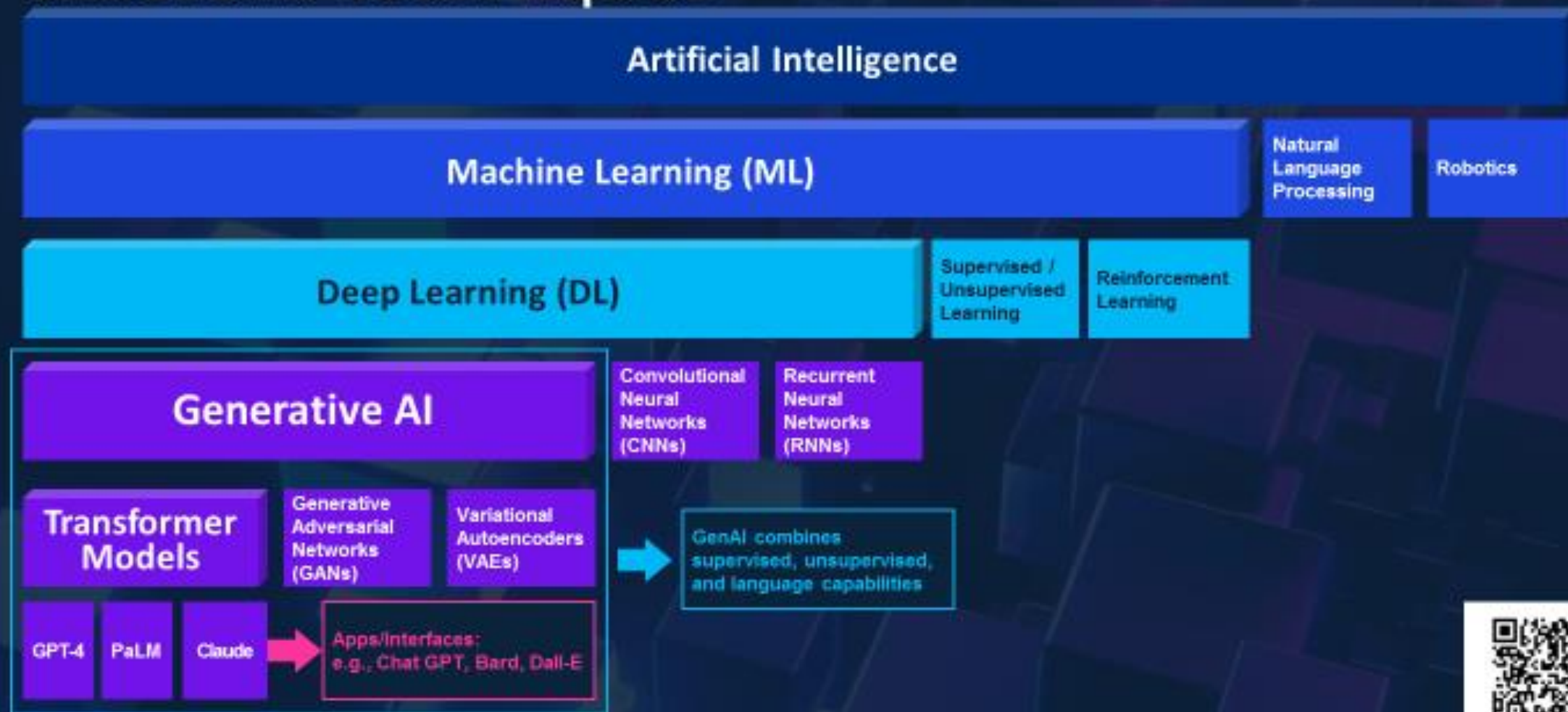


What is artificial intelligen ce

Connect @ NCREIF:



“AI” is an umbrella term that encompasses different techniques



Defining GenAI



Generative AI refers to a type of AI techniques that learn from a large volume of artifacts and data and use it to generate new artifacts at scale (including images, video, music, speech and text).

What makes GenAI so accessible?



Generative AI has the ability to generate new content and data faster than ever before because of some key factors:



Large Language Models these models are big (>175 billion parameters in GPT3 and >100 trillion in GPT4)



Pre-trained: The "P" in GPT means the models are built in advance on these large volumes of data and can therefore provide results extremely quickly



Training data augmentation allows them to increase sample size, data quality and improve model performance



Natural Language Functionality is built in by default so you can seamlessly interact with the models

Capabilities

01

Create

02

Explain

03

Edit

04

Compare

05

Coach



Large language model lifecycle

Data preparation



Collect and annotate data relevant to the goal of the project

- Evaluate collected data (e.g., internal, external, etc.) to ensure quality.
- Label data (e.g., text, audio, images, videos) with relevant tags to help the computer understand and interpret the data.

Initial training



Input the prepared data into the model, which makes decisions based on the information

- Identify errors that surface.
- Make adjustments to help the AI become more accurate.
- Simplify the model to avoid overfitting to the training data.

Training validation



Corroborate assumptions about the performance of the AI with a new dataset

- Evaluate results to confirm the AI is performing as expected.
- Account for any new variables previously not considered.
- Multiple datasets may be used to evaluate for overfitting risk.

Model testing



Test the model with real-world data

- Test dataset consists of unstructured data with no labels, tags, or targets.
- If results are unsatisfactory, return to the training stage and repeat the cycle until desired results are obtained.

Post-deployment

Maintain and retrain the model using new data, fine-tune performance, and manage human-in-the-loop engagement.



Data sources for model ingestion

Laws, regulations, and authoritative guidance

- US GAAP
- IFRS
- Accounting research and technical bulletins/topics
- AICPA opinions
- SEC rules



Data used for artificial intelligence can be ingested from a variety of sources

Accounting and reporting data

- General ledger detail and chart of accounts
- Financial statements
- Process flow documentation and accounting policies
- Transaction support (e.g., invoices, bank statements)

Public information

- News publications
- SEC filings
- Patent filings
- Social media
- Market indicators and data
- Competitor publications



Other company data

- Customer profiles
- Payroll and benefits
- Performance management
- Employee profiles
- Sales and marketing
- System performance



SURVEY 2

Session Code: accpmc0327

What is your sentiment about the impact of AI?

1. Positive – lots of opportunities for use
2. Negative – the machines will take over
3. Unsure – unclear on how AI will impact me

<https://cvent.me/0PM9>

THE FUTURE OF COMPLIANCE - THROUGH AI



Henry Lindemann BlueFlameAI
Co-Founder/ COO

Microsoft Teams

HL recording

2024-03-25 20:23 UTC

Recorded by

Henry Lindemann

Organized by

Henry Lindemann

WHO WE ARE

BLUEFLAME AI



- ✓ Founded in **2023**
- ✓ Founders and leaders have worked in or with **Alternative Investment Managers** as deal makers, developers, cybersecurity specialists, and at mission critical service providers.
- ✓ Based in **New York and London**

Data Points

- 25+ clients with hundreds of billions in AUM and hundreds of users.
- Connections to a growing number of Industry specific data sources and applications
- Privately funded
- Advisory board of clients and industry experts

Product Points

- AI Native
- Purpose-built
- SOC2 certified
- Full SEC 17(a)-4 archive
- Instant value on core functionality, opportunity to more deeply partner

WHAT IS BLUEFLAME AI?

BlueFlame AI is the only AI-native solution specifically tailored to all roles and functions at Alternative Investment Managers.



AI-Native



Purpose-built



**Compliant
& Secure**



**LLM
Agnostic**



WHAT WE DO FOR FIRMS LIKE YOURS

Once a source is connected to **BlueFlame**, information can be queried from a single access point, regardless of where the data lives.

BLUEFLAME AI AGENT

YOUR FIRM

BlueFlame is bi-directional, allowing you to both read and write to systems.



THE FUTURE OF PERFORMANCE - THROUGH AI



PortfolioAI

NAVIGATORCRE

navigatorcre.com

TAYLOR ODEGARD NAVIGATORCRE
CO- FOUNDER – CHIEF OPERATING OFFICER

Artificial intelligence governance & ethics

Connect @ NCSSE





Trust

- Risk to external reputation (customer and stakeholders)
- Risk of bias, discrimination, and misinformation
- Risk of opaqueness in AI



Compliance

- Rising number of global regulations around AI and ethics
- Compliance with growing number of internal enterprise policies and controls



Security & Privacy

- Skyrocketing number of security vulnerabilities -- cyber and adversarial
- Need for transparency and consumer privacy



Value

- Lack of awareness and training on AI
- Risk of data integrity, statistical validity, model accuracy
- Lack of technology assessment tools



Speed

- Growing number of models built with diverse stakeholders and complex pipelines
- Exponential increase in data, storage, and compute



Internal Risks & Considerations

Intellectual Property

- #Exposing IP
- #Misuse of proprietary info
- #Unintended leaks

Talent Implications

- #Talent masking
- #Imposter syndrome

Inaccuracies

- #False responses
- #Shallow trained models
- #Lack of model cards

Data Quality

- #Ground truth management
- #Accuracy of output
- #Data irrelevance
- #Data sparsity
- #Data drift
- #Data loss
- #Data toxicity
- #Transfer learning errors
- #Data governance
- #Measuring inception scores

Sustainability

- #Computational costs
- #Energy Intensiveness
- #Carbon reporting impacts

Misinformation & Discrimination

- #Harmful outputs
- #Loss of control
- #Hallucinations
- #Bias in output
- #FID Scores

Infringement

- #Copyright claims
- #Privacy infringement
- #Liability Infringement

Cyber & Adversarial Threats

- #Phishing scams
- #Loss of control
- #Deliberate manipulations
- #Prompt injection

Brand Reputation

- #Lack of creativity
- #Job displacement
- #Output transparency



Global artificial intelligence regulatory

us landscape

- **Executive Order on Safe, Secure, and Trustworthy Development and Use of AI (2023)**
- **NYC AI Hiring Act (2023)**
- **US: AI Bill of Rights (2022)**
- **National Institute of Standards and Technology- AI Risk Management Framework (2022)**
- US: The American AI Initiative (2019); Algorithmic Accountability Act (2019); State and Local policies; DOD AI Strategy (2019)
- The National AI R&D Strategic Plan (2019)

Africa and Middle East

- Kenya: Blockchain and AI taskforce (2018)
- Tunisia: AI Task Force (2018)
- South Africa: Sector-specific initiative launched by Government for AI (2018)
- Dubai: AI Ethics Principles and Guidelines (2018)

Europe

- **EU: EU Artificial Intelligence Act (2024)**, Digital Services Act & Digital Markets Act
- Finland: Released three reports 2017-2019; last report focuses on ethics
- Sweden: National Approach for AI (2018); launched national centre for AI innovation (2019)
- Denmark: Strategy for Digital Growth (2018); National AI Strategy (2019)
- The UK: AI Sector Deal in (2018)
- Germany: National AI strategy (2018)
- France: AI for humanity (2018)
- Austria: Council on Robotics and AI (2017)
- Spain: RDI Strategy in Artificial Intelligence (2019)
- Italy: "AI at the Service of Citizens" (2018); lab for AI created (2018)
- Poland: "Roundtable on AI strategy" (2018)
- Malta: Malta AI strategy Public Consultation (2019)
- Estonia: Kraft Report (2019); AI taskforce (2018)
- Netherlands: General Principles for the use of AI in Financial Sector (2019)

Latin America

- Mexico: 'Towards an AI Strategy in Mexico' white paper released (2018); no dedicated strategy yet; also has IA2030 Coalition that works with the government on AI
- Brazil -E-Digital Strategy, digital transformation strategy addresses AI (2018);
- Brazil, Argentina, Peru, Colombia, Costa Rica follow OECD principles on AI (2019)

Japan

- Japan: AI Technology Strategy (2017) (part of Japan's Society 5.0 initiative); AI made a part of integrated innovation strategy (2018)

Australia

- Publication: AI Ethics Framework Discussion Paper (2019)

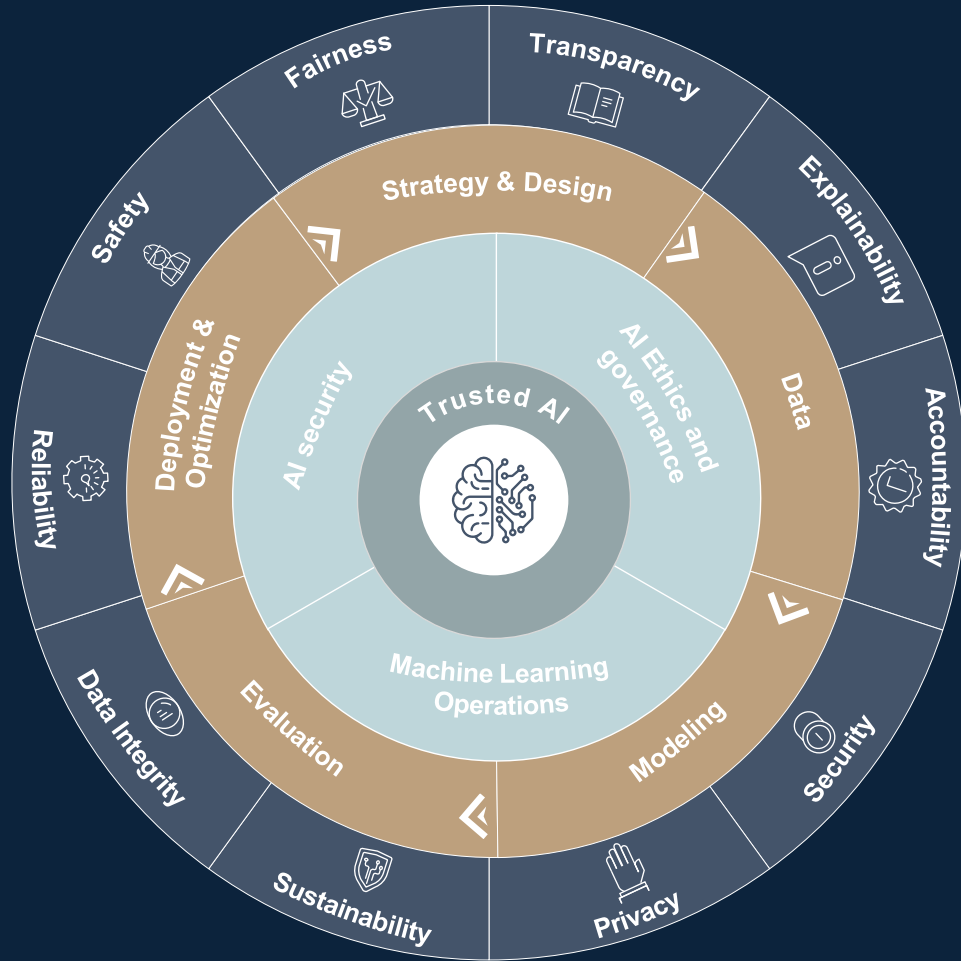
International

- **OECD – The OECD council recommendations on Artificial Intelligence.** Global governance framework signed by 42 countries and non-OECD members Brazil, Argentina and Romania (2019)
- **ICO – The ICO and Alan Turing Institute creating practical guidance to assist organizations with explaining AI decisions.** (2019)



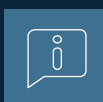







Asia

- Singapore: Principles to promote fairness, ethics, accountability, and transparency (FEAT) in the use of AIDA in Singapore's financial sector (2018)
- China: Beijing AI Principles Publication (2019)
- Hong Kong: Ethical Accountability Framework Publication (2018)





Considerations may include:

- 
Fairness
 Ensure models reduce or eliminate bias against individuals, communities or groups.
- 
Transparency
 Include responsible disclosure to provide stakeholders a clear understanding as to what is happening within the AI solution and across the AI lifecycle.
- 
Explainability
 Ensure AI solutions are understandable as to how and why recommendations are made or conclusions drawn.
- 
Accountability
 Human oversight and responsibility embedded across the AI lifecycle to manage risk and ensure compliance with regulations and applicable laws.
- 
Sustainability
 Optimize AI solutions to limit negative environmental impact where possible.
- 
Security
 Safeguard against unauthorized access, bad actors, misinformation, corruption, or attacks.
- 
Privacy
 Ensure compliance with data privacy regulations and consumer data usage.
- 
Data integrity
 Ensure data quality, governance, and enrichment steps embed trust.
- 
Reliability
 Ensure AI systems perform at the desired level of precision and consistency.
- 
Safety
 Safeguard AI solutions against harm to humans and/or property.



SURVEY 3

Session Code: accpmc0327

Do you believe that AI-driven automation poses a threat to traditional accounting and performance roles or complements them?

1. Threat or replacement
2. Complement

<https://cvent.me/0PM9>

QUESTIONS?