

Are Humans Going to Lose Control in Managing Assets?

20 & 21st June 2024, Porto,
Portugal.



Fonte: <https://www.aetechgroup.com/the-pros-and-cons-of-ai-for-your-business/>

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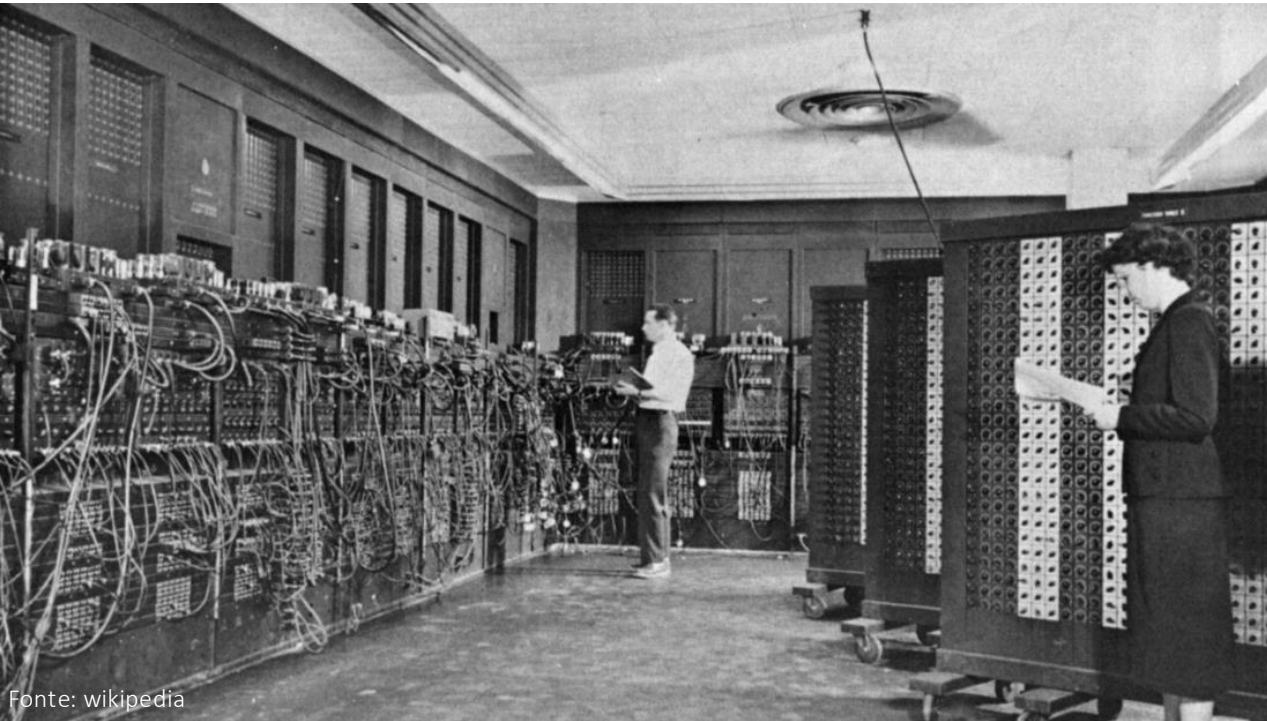
Agenda

- 1 . Current landscape of AI Adoption
2. Increased role in Asset Management
3. AI Potential Risks and Concerns
4. Symbiosis of Human Intelligence and AI
5. Top use cases in Asset Management
6. Future Asset Management

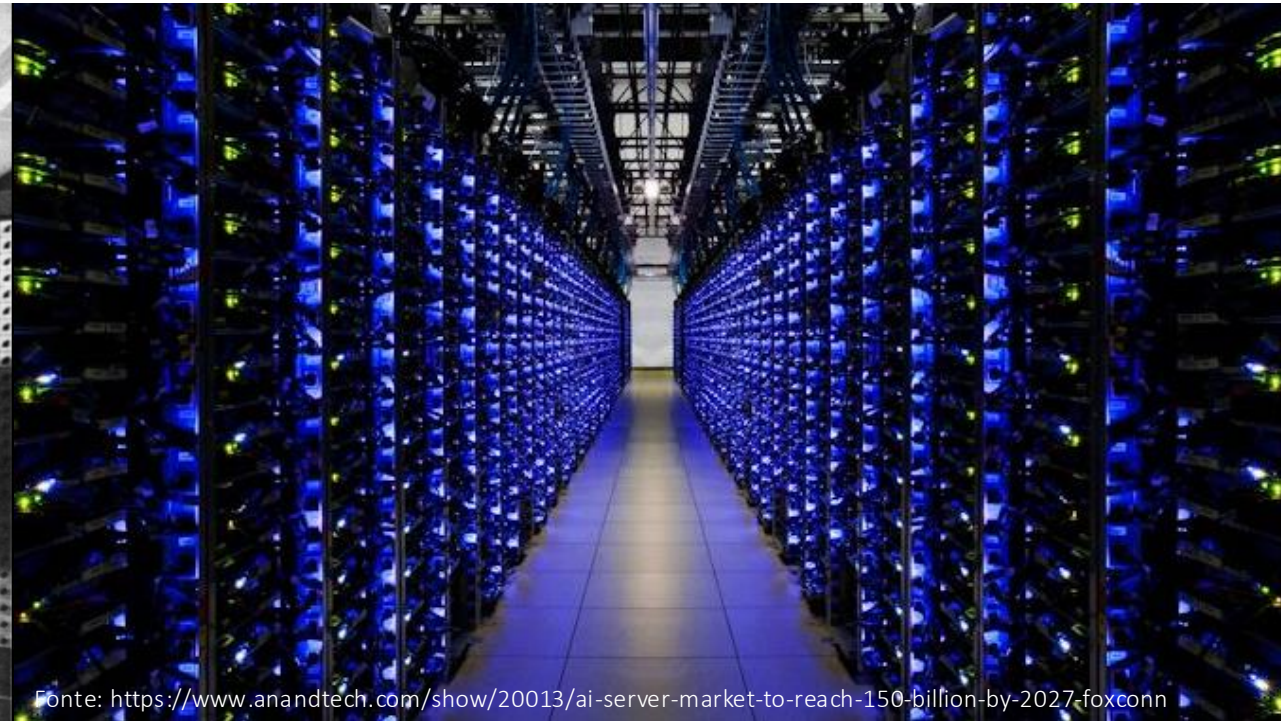
1. Current landscape of AI Adoption

Why now?

- The first working **AI programs were written in 1951** at University of Manchester: a checkers-playing program written by Christopher Strachey and a chess-playing program written by Dietrich Prinz.
- While AI principles were indeed developed decades ago, recent advancements in **data availability, computing power**, algorithms, and collaboration have propelled AI forward at an unprecedented pace.



Fonte: wikipedia



Fonte: <https://www.anandtech.com/show/20013/ai-server-market-to-reach-150-billion-by-2027-foxconn>

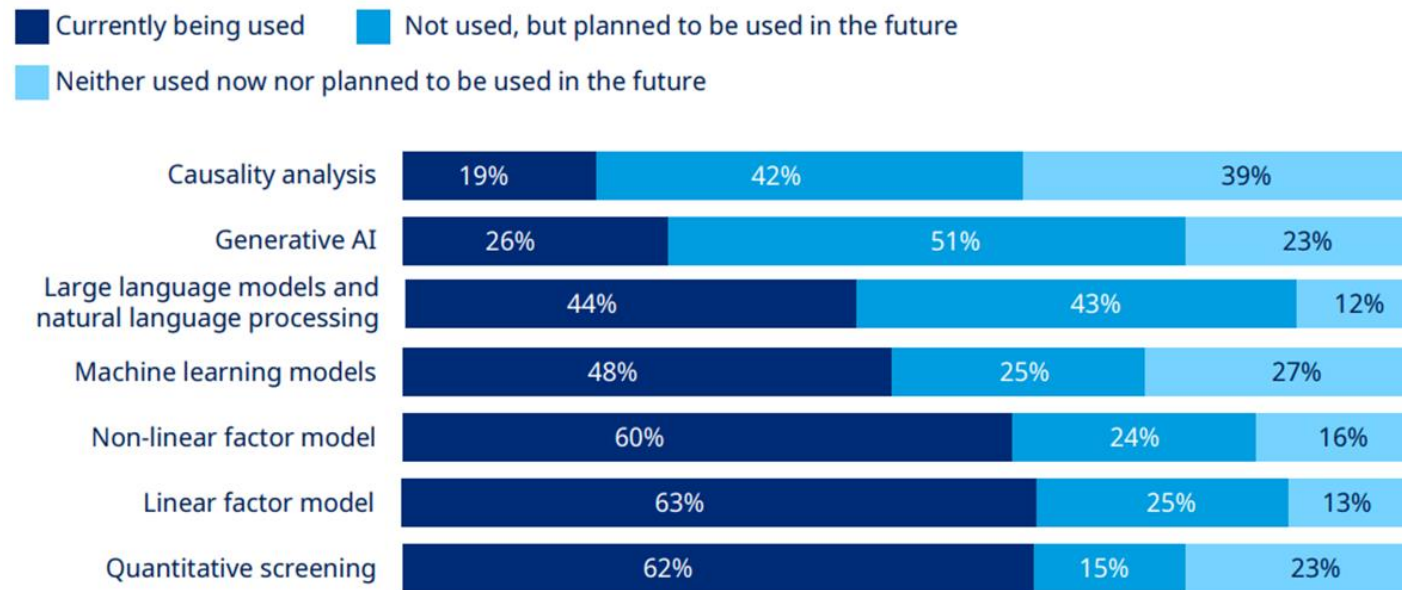


- A typical desktop CPU from the 1990s, like the Intel Pentium, operated roughly **1,000 to 10,000 times**.
- **Internet speeds have increased from dial-up connections of 56 Kbps in the 1990s to gigabit-per-second (Gbps) speeds today.** This is an increase of approximately **10,000 to 100,000 times**.
- **Store : In the 1990s,** HDDs had capacities measured in hundreds of megabytes. Modern HDDs offer capacities in the terabytes (1 TB = 1,000 GB). Current SSDs can exceed **4 TB**.
- **Data :** The amount of data generated annually increased by a factor of approximately **1 billion times from 1993 to 2023.** Each day is generated **400mn terabytes data**.



EFFAS | The European Federation
of Financial Analysts Societies

1. Current landscape of AI Adoption



Source : Mercer

AI in Asset Management

- Automated operational tasks :
AI now is used more in **routine and repetitive** processes like screening, risk and quant models.
- Generative AI is not used but is planned to use in the future.

1. Current landscape of AI Adoption

■ Fully automated ■ Infrequently ■ Frequently ■ Always

Participants who currently use AI

Deep learning models



Machine learning



Statistical models to support portfolio construction



Participants who plan to implement AI

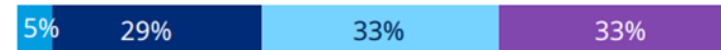
Deep learning models



Machine learning



Statistical models to support portfolio construction



Source : Mercer

AI in Asset Management

...Human Touch will not disappear...

Mercer Survey shows only **5%-10% tasks** will be fully automated and **around 30-40%** will be done exclusive by humans...

2. Increased role in Asset Management

Better decision making

- It identifies patterns and trends that might be missed by human analysts.
- **Big data era**, where the volume and complexity of information can be overwhelming..
- By integrating **various data sources**, including market data, financial reports, and social media sentiment, AI can provide a more comprehensive and holistic view.



2. Increased role in Asset Management

Increased importance of Risk management

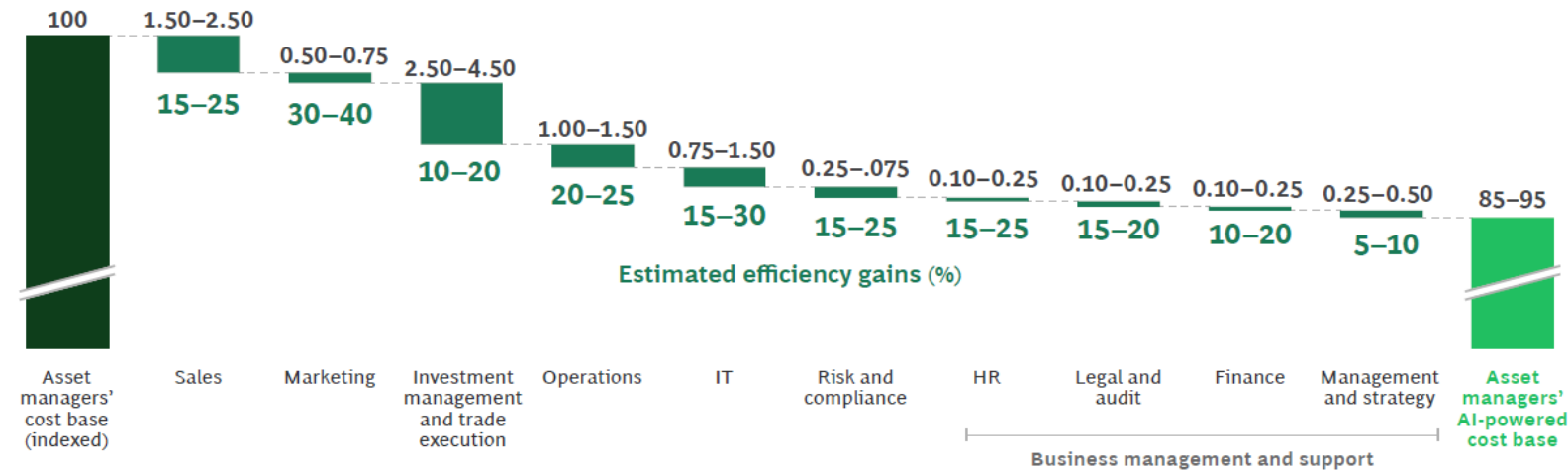


Fonte: <https://www.omnitracker.com/en/resources/news/ai-in-risk-management/>

- AI systems **continuously monitor market conditions**. They predict potential risks, allowing for more proactive management of assets.
- For example, AI can detect **early signs of market volatility** or identify factors that might negatively impact a specific asset class.
- This predictive capability **helps in mitigating risks before they materialize**.

2. Increased role in Asset Management

Exhibit 4 AI-Enabled Gains Can Improve Productivity Across the Value Chain



Sources: BCG's Global Asset Management Benchmarking Database, 2023; expert interviews; BCG analysis.

Note: Individual value chain ranges do not add up to the total range because of rounding.

Efficiency and cost reduction

- Automating routine tasks with AI reduces operational costs.
- This allows human professionals to focus on more strategic activities.
- AI can help reduce negative jaws as costs can decrease and revenues increase with tailor made solutions.

3. AI Potential Risks and Concerns

Complacency and lack of transparency

- One concern is that an over-reliance on AI might lead to **complacency** among **human managers**. This could **reduce** their **skills and understanding of the market**.
- This can be exacerbated by lack of transparency in AI Algorithm.
- Humans cannot lose skills in AI era, we need to constantly **study and re-skill** and **up-skill** no matter our age.



<https://www.unite.ai/automation-complacency-how-to-put-humans-back-in-the-loop/>

3. AI Potential Risks and Concerns



Fonte: <https://www.adp.com/spark/articles/2020/11/ai-and-data-ethics-privacy-by-design.aspx>

Data breaches

- AI systems rely on vast amounts of data, including sensitive financial information, client details and proprietary trading algorithms. This makes them attractive targets for cyberattacks

3. AI Potential Risks and Concerns



Fonte: <https://www.r-bloggers.com/2019/08/new-course-learn-advanced-data-cleaning-in-r/>

Can data be the new oil?

- Any model depends on the amount and **quality of data** it has as input. AI is not different.
- AI fever can result in bad predictions due to a **lack of historical data** for a vast number of variables that we only have in contemporaneous data
- This can result in a low hit ratio in **changes in market contexts** for which we do not have historical data.

3. AI Potential Risks and Concerns



Fonte: <https://womensagenda.com.au/tag/unconscious-bias/>

*"...in 2018, the Equal Employment Opportunity Commission — the nation's workforce watchdog — issued a damning special report on **age discrimination against older Americans**. It concluded that even though 50 years had passed since Congress outlawed the practice, "**age discrimination remains a significant and costly problem for workers, their families and our economy...**"*

Perpetuate bias

- AI risks **entrenching biases**. Recruitment is a good example of ethical AI's importance in business contexts.
- Besides gender and race, age is becoming a major hurdle in job interviews.
- AI is increasing it on screening process?

3. AI Potential Risks and Concerns



Fonte: AI generated by microsoft copilot

Ethical Issues in General

- What will an automated car decide when need to choose between human lives?
- What would be an AI answer to climate change or insufficiency of resources ?
- We cannot let AI rule against human lives.

3. AI Potential Risks and Concerns



OpenAI CEO Sam Altman in a May 2024 photo. Jason Redmond/AFP/Getty Images

*"...OpenAI CEO Sam Altman wants an international agency to regulate artificial intelligence. Altman said an **agency approach would be better than inflexible laws** given AI's rapid evolution. He compared AI to airplanes, emphasizing the need for a safety testing framework..."*

Regulation

- Artificial intelligence will create powerful tools **that require legal regulation** and social norms that have yet to be worked out.
- Corporate companies **are too afraid of losing to competition**, so priority is not internal regulation.
- Governments need to step in to prevent AI from harming humans.

[Do AI robots plan to take human jobs or start a rebellion? \(youtube.com\)](https://www.youtube.com/watch?v=...)

4. Symbiosis of Human Intelligence and AI



Fonte: <https://sociable.co/technology/ai-control/>

Mitigate AI Risks

- Human oversight can reduce AI risks because they can **review and validate** AI-generated recommendations, providing an additional **layer of scrutiny and accountability**.

4. Symbiosis of Human Intelligence and AI



Fonte : <https://management.org/personaldevelopment/thinking/creative-thinking.htm>

Prevent conformity bias

- To stifle innovation by merely reproducing existing knowledge. AI systems learn from historical data and existing patterns, which can limit their ability to generate new ideas or approaches.

5. Top use cases in Asset Management

1. Read earnings transcripts to **assess management sentiment**.
2. **Compare data with alternative datasets** such as weather forecasts, container ship movements and search engines.
3. Use machine learning to **automate operational tasks**.
4. Improve risk analysis and **generate automated risk reports**.
5. **Generate automated reports for clients**.
6. Discover **revenues opportunities** for increasing clients share of wallet
7. Monitor **employee risk and morale**
8. **Resume documents**
9. **Read documents and prepare presentations**
10. Simulate live presentations – **Digital humans**

<https://www.youtube.com/watch?v=9Oc7uP7c1UQ>



Fonte :<https://www.thefifthindustrialrevolution.co.uk/>

6. Future Asset Management



Fonte :<https://consilience.ai/the-future-of-causal-reasoning-in-investment-management-harnessing-the-power-of-large-language-models/>

- Rather than fearing AI, we should embrace it.
- The future of asset management lies in the synergy between human intelligence and artificial intelligence.
- AI can help reduce negative jaws as costs can decrease and revenues increase with tailor made solutions.
- The Debate should not be **Humans v. AI** but rather **Humans with AI vs. Humans without AI.**

In conclusion, humans will not lose control over managing assets; instead, we will be empowered by AI to reach new heights in asset management.