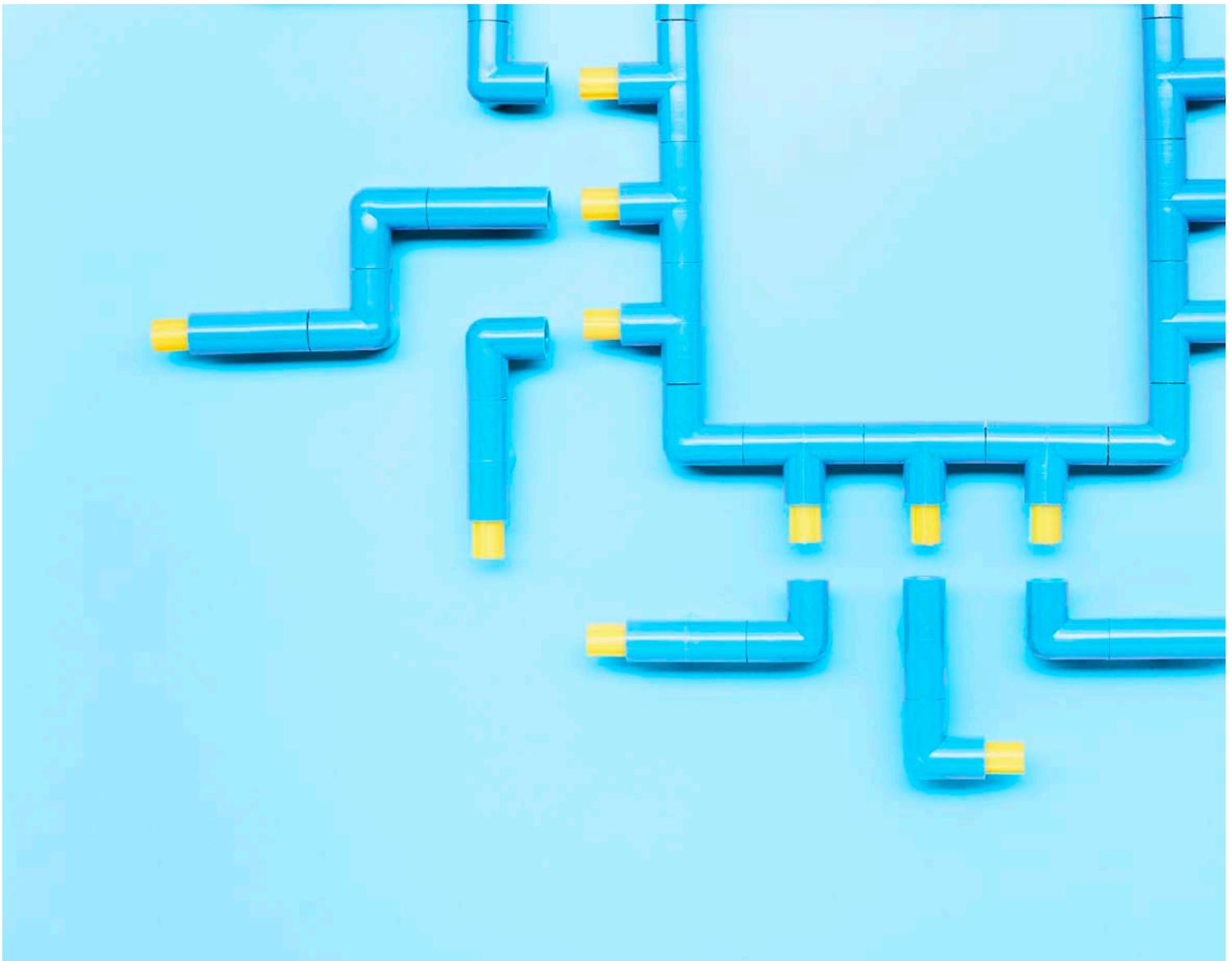


Will AI transform alternatives?

Artificial intelligence is quickly moving from the fringe to the mainstream. What does that mean for investors, allocators, and asset managers?



“We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.”

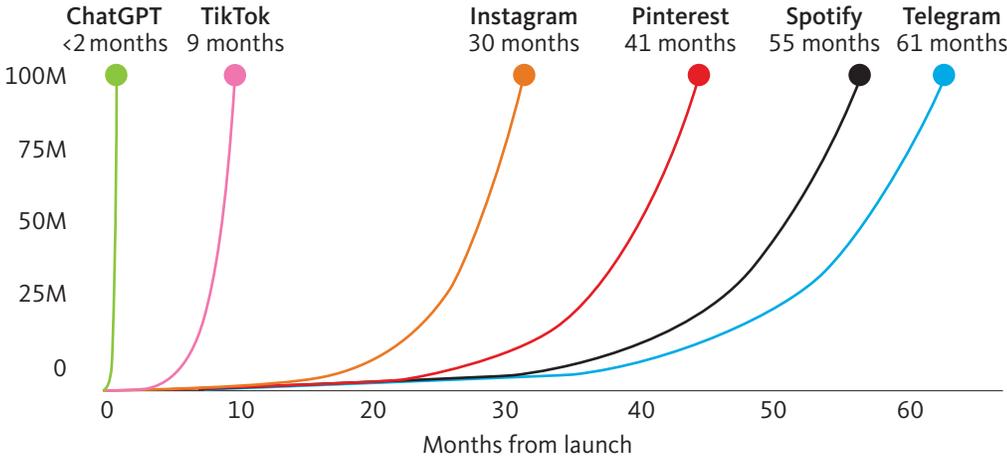
— Amara’s Law (Roy Amara)

A year to remember.

The concept of artificial intelligence (AI) has intrigued people for centuries, but in 2023 it became real to millions. Incubated by decades of research and funded by the world’s wealthiest technology firms, artificial intelligence is suddenly on everyone’s lips.

ChatGPT—the AI chatbot developed by OpenAI—reached 1 million users within five days of its launch. Within two months, it reached 100 million users, making it one of the fastest growing platforms in history (Figure 1). This unprecedented enthusiasm led other platforms to quickly follow. Venture capital poured into AI startups, making the sector a notable bright spot in an otherwise lackluster investment environment.

Figure 1. Path to 100 million users



Source: Sequoia

It’s too early to say how important all of this is. Low rates of retention and engagement hint at a substantial amount of hype along with surging demand. Sequoia, one of the world’s largest venture firms with significant investments in AI, suggests: “Generative AI’s biggest problem is not finding use cases or demand or distribution, it is proving value.”¹ Indeed, by July 2023, 18% of U.S. adults had used ChatGPT, according to a survey by Pew Research Center.² Younger and more educated Americans are more likely than others to use ChatGPT overall, and that includes using it to learn something new or to help with tasks at work. Perhaps the survey’s most notable finding, however, is how few people think AI will have a major impact on their jobs.

Hedge fund managers know otherwise. As members of a relatively small cohort with experience using AI in commercial applications, they have witnessed the power and limitations of AI firsthand. Some have built entire businesses around it. It is small comfort being an early adopter when the world catches up to you. The operating environment is quickly being contorted by the promise and peril of AI. How firms accommodate and plan for these changes could have long-lasting consequences.

¹ Sonya Huang, Pat Grady, GPT-4, “Generative AI’s Act Two,” Sequoia, September 20, 2023.

² Eugenie Park and Risa Gelles-Watnick, “Most Americans haven’t used ChatGPT; few think it will have a major impact on their job,” Pew Research Center, August 28, 2023.

The AI advantage.

AI already plays a vital role at some alternative investment firms, and its importance is likely to grow as private market firms follow a path pioneered by hedge funds. Here are some ways AI is being used or will be soon:



Portfolio management

AI models can process copious amounts of structured and unstructured data and highlight patterns and trends that may not be immediately apparent to human analysts. This analysis can help investment firms make more informed investment decisions and adjust their portfolios in response to changing market conditions. This ability can also be exploited to expand the universe of investment opportunities. Distinguishing truth from plausibility is still a challenge, but accuracy and timeliness can be expected to improve alongside underlying models.

Alternative managers are already pioneers in the use of alternative data sources, such as satellite imagery and cellphone usage. Now, they will be able to explore the efficacy of other esoteric data sets and incorporate them into their workflows, gaining an even more comprehensive and nuanced understanding of market dynamics and investment opportunities.



Risk management

AI models can be used to pinpoint and manage risks in investment portfolios. Machine learning algorithms are used to analyze market data and identify potential risks and suggest strategies to mitigate them. These algorithms can find potential risks with a high degree of accuracy, potentially helping investment firms avoid costly losses. AI can continuously monitor and assess market risks in real time, providing investors with early warnings of potential downturns or opportunities. This can help investors proactively manage risks and adjust their strategies to minimize potential losses and maximize returns.



Trading and execution

The fact that AI models can be used to execute trades and manage portfolios will not come as news to hedge fund managers. As early as 2018, more than half of all hedge funds were using AI to inform investment decisions. Most relied on AI for idea generation, while a quarter used it to automate trade execution.³ This early adoption means there is a track record. Dramatically different approaches make generalizations difficult, but performance has been decidedly mixed. According to Plexus Investments, only 45% of AI-driven hedge funds outperformed their own benchmarks over five years.⁴

³ Sol Waksman, "Majority of Hedge Fund Pros Use AI/Machine Learning in Investment Strategies," *BarclayHedge*, July 17, 2018.

⁴ Justina Lee, "Hedge Funds Find It's Really Hard to Beat the Market With AI," *Bloomberg*, October 6, 2023.



Operations

AI can automate and streamline routine and repetitive tasks, such as transaction recording, invoice processing, reconciliations, and financial reporting. Advanced AI-powered accounting systems can accurately track and analyze complex financial data, ensuring accurate and transparent financial reporting for all partners. Additionally, AI can reveal potential discrepancies or anomalies in financial data, enabling faster detection and resolution of accounting errors or irregularities. By streamlining these processes, investment firms can optimize resource allocation, reduce operational costs, and allocate more time and resources to value-added activities, such as client advisory services and investment strategy development.



Compliance

AI can play a crucial role in ensuring regulatory compliance in the alternative investment sector. By automating compliance monitoring and reporting processes, AI can help investors navigate complex regulatory frameworks more efficiently and reduce the risk of noncompliance. The collection and analysis of regulatory data can be automated, helping to ensure compliance. Regulatory changes can also be monitored while internal processes are updated accordingly, helping investment firms stay ahead of regulatory developments across multiple jurisdictions and avoiding potential compliance risks and penalties.



Client engagement

AI models can be used to enhance client engagement and communication. Some investment firms already use chatbots or virtual assistants to communicate with clients. These AI-powered tools can analyze client data and provide personalized recommendations, which can help investment firms build stronger relationships with their clients.

There are clear advantages to virtual assistants, including 24/7 availability and virtually instantaneous response times. Simplified customization can also empower relationship managers, possibly making high-touch models, which were once prohibitively expensive, now within reach for more managers and intermediaries. Personalized investment strategies can be tailored to individual investor needs, and interactions can take place in any language.



Security

Data security and privacy have never been more essential. This is due in no small part to AI, which can be used by bad actors to facilitate breaches. But AI can also be used to strengthen cybersecurity measures and detect potential security threats or data breaches in real time. By implementing advanced AI-driven security solutions, investment firms can protect sensitive client information and financial data, thereby building trust and confidence among clients and partners.

Empowering employees.

Asset management firms—and alternative managers in particular—are closely identified with their people. The industry has matured beyond its reliance on star fund managers who were household names, but the fortunes of most firms are still indelibly linked to the performance of their employees. Typically sporting expensive educations, specialized expertise, and networks of relationships in a tight-knit ecosystem, the best people can be difficult to recruit and devastating to lose.

Industry pundits regularly talk about the war for talent. AI is set to rewrite the rules of engagement by creating new positions and blazing new paths forward for employees to add value and find fulfillment. Thanks to increasingly sophisticated algorithms being used by recruiters and platforms such as LinkedIn, hiring strategies already reflect the use of AI. Intense interest in this area means we may see significant advances soon. It is not hard to imagine a future where a “best fit” could be determined between job openings and specific individuals, regardless of their current employment status.

We believe that a growing number of these openings will inevitably involve AI in some capacity, as AI is embedded into existing workflows and creates a need for new roles and expertise. These roles will further evolve as processes are reimaged and new workflows emerge to extract as much value as possible from emerging technologies. Successful firms will encourage staff to embrace the challenge of integrating AI into their functions, potentially revolutionizing how things are done.

It is easy to jump to the conclusion that widespread adoption of AI will lead to job losses. The most vulnerable positions will be those centered on manual, repetitive tasks, such as data entry, invoice processing, and reconciliations. Many of these functions are already being outsourced and/or automated, so AI is unlikely to produce net job losses. A few firms may choose to replace research and investment teams with AI models, but we are more likely to see firms add new professionals with complementary skill sets to enhance investment and business performance.

Ultimately, AI is more likely to enhance and augment human intelligence than replace it. Kweilin Ellingrud of McKinsey says: “Everybody is going to need to work differently, because parts of our jobs will be affected by generative AI. For some, it will be a more fundamental elimination of the job. For others, it will more remake how we spend our time.”⁵ The most successful firms of the future will foster a culture that embraces AI as an opportunity while also being candid about its limitations and risks. The most successful teams will augment the competencies of their professionals with a novel that unlocks their potential.

“Everybody is going to need to work differently, because parts of our jobs will be affected by generative AI. For some, it will be a more fundamental elimination of the job. For others, it will more remake how we spend our time.”

— Kweilin Ellingrud, McKinsey Global Institute

⁵ Kweilin Ellingrud, et al, “Generative AI: How will it affect future jobs and workflows?” McKinsey Global Institute, 2023.

AI is generating new jobs.

Roles and areas of expertise that will likely become essential include:

AI strategists

These professionals would be responsible for designing and implementing AI-driven strategies and solutions within asset management firms. They would need a deep understanding of both AI technologies and the intricacies of the investment landscape to effectively leverage AI tools for improved decision-making and operational efficiency.

Data scientists and analysts

With the increasing reliance on AI for data analysis and predictive modeling, the demand for data scientists and analysts who can handle large datasets is likely to grow. These professionals would be instrumental in developing and refining AI algorithms to derive meaningful insights and support informed investment decisions.

Implementation and integration experts

These professionals would be responsible for the seamless integration of AI technologies into existing workflows and systems within asset management firms. They would need expertise in deploying and managing AI solutions, as well as the ability to optimize AI applications to meet the specific needs and goals of the firm.

Training and development specialists

With the adoption of AI, there would be a need for professionals who can train and upskill existing employees to effectively utilize AI technologies in their day-to-day roles. These specialists would design training programs to ensure that employees are proficient in using AI tools and platforms, allowing them to make more informed decisions while working more efficiently.

Ethicists and compliance officers

Given the ethical and regulatory considerations associated with the use of AI in asset management, the need for professionals specializing in AI ethics and compliance is expected to rise. These individuals would be responsible for ensuring that AI applications adhere to ethical standards and regulatory guidelines, thereby mitigating potential risks and ensuring responsible use of AI technologies.

Cybersecurity specialists

As the integration of AI increases the complexity and volume of data within asset management firms, the demand for cybersecurity specialists would also grow. These professionals would be tasked with safeguarding sensitive financial data, protecting AI systems from threats, and ensuring the overall security of digital infrastructure within the firm.

Implementation challenges.

The potential benefits of using AI are clear. If they weren't, we would not hear about trendsetting firms like Bridgewater, Renaissance, DE Shaw, Man Group, and AQR developing innovative uses for AI to help them capitalize on market opportunities. Industry behemoths like the Carlyle Group, Blackstone, Apollo, KKR, and Goldman Sachs are also exploring their options or actively working with AI tools as part of their investment process. Both groups are joined by a growing coterie of AI-centric boutiques.

All these firms have world-class skills in assessing risk, so it is safe to assume that they are moving ahead prudently. What challenges do they face beyond the day-to-day frustrations that come with any new technology? What risks are inherent to AI?

- **Lack of transparency** is a particularly vexing problem, as it flies in the face of a pronounced industrywide shift toward greater transparency. AI systems can make puzzling choices, and the inability to explain them to disgruntled clients is problematic.
- **Lack of control** is a related issue. Because the decision-making of AI systems can be opaque, it can be challenging to address structural errors or finely tune results.
- **Inconsistent accuracy** is especially problematic for investment firms, which require a high degree of precision in all aspects of their operations. The “hallucinations” for which some generative AIs are notorious are not helpful.
- **Bias** was quickly identified as a shortcoming of AI systems, and it remains a persistent problem that is challenging to mitigate.
- **Lack of domain knowledge** may not affect bespoke systems built in-house by large firms, but it is an irritant to virtually anyone else trying to tease specialized knowledge out of AI models, which are currently more adept at being generalists.
- **Limited data:** AI systems can require vast amounts of data to train. Bridging the gap from mildly useful generalist AI to insightful specialist AI is likely to be time- and resource-intensive.
- **Data privacy** is a major area of concern. This is an increasingly visible challenge for large language models (LLMs) that require vast amounts of data to train, and it will be faced by any firm that decides to use internally collected data to train its own models.

The hurdles are high enough that some firms may reconsider before embarking down this path. One research paper that goes to great lengths in detailing the useful applications of AI in asset management goes on to highlight many risks before concluding with this: “Whether the benefits associated with AI can justify its considerable development and implementation cost is unclear.”⁶

⁶ Söhnke M. Bartram, Jürgen Branke, Mehrshad Motahari, “Artificial Intelligence in Asset Management,” CFA Institute Research Foundation, 2020.

Edge cases.

Most challenges can be mitigated over time, but there is a deeper underlying risk that may continue to haunt managers: edge cases.

Adapting AI to the world of asset management is akin to the development of autonomous vehicles. Massive investment, significant innovation, and extensive testing have resulted in the almost miraculous vision of driverless cars regularly ferrying passengers around chaotic and unpredictable cityscapes. Edge cases with tragic consequences, however, proved to be too much for at least one operator of driverless taxis that had its permit withdrawn by California.

Fund managers do not typically make life or death decisions, but they do involve high stakes, and relinquishing control to AI systems is inherently risky. As one developer involved in autonomous vehicle technology points out: “A successful AI application or company is not one that gets it right 99.9% of the time. Success is defined by the ability to get it down to the 0.1% of the time it doesn’t work—and that 0.1% is about edge cases.”⁷

One daunting aspect of applying AI to asset management is the threat posed by failure. A profound miscalculation that triggers an unprofitable trade could have grave consequences. Even relatively minor mistakes in reporting or communications could severely undermine a firm’s reputation. It is therefore critical that firms plan for the worst by considering edge cases. There is not a lot of data (by definition) on black swan events or other unusual scenarios. Instead, managers may find that they need to develop simulations that facilitate the training of their AIs by generalizing edge cases and generating sufficient data.

It may be a bumpy ride, and huge strides will almost certainly be interrupted by stumbles or meltdowns. Much like the clamping down on driverless cars, asset managers should expect periodic regulatory interventions that may interrupt progress before a set of guardrails is agreed upon.

One daunting aspect of applying AI to asset management is the threat posed by failure. A profound miscalculation that triggers an unprofitable trade could have grave consequences.

⁷ VB staff, “Living on the edge: How edge cases will determine the future of generative AI,” *VentureBeat*, August 8, 2023.

The next act in AI.

Many hedge funds already have a track record with AI. Private equity firms are later arrivals, but they have a distinct opportunity to amplify the capabilities of this new technology by buying early adopters of AI and transferring their skills and capabilities across their portfolios. Private credit firms are increasingly recognizing AI as a valuable tool to screen investment opportunities, streamline due diligence processes, enhance portfolio management, and optimize exit strategies.

Early adopters worked alone, but this is changing. The broader AI marketplace is being flooded with a variety of new apps serving individuals as well as enterprises. For the latter, there are functional specialists along with AI agents serving industry verticals. Behind all of these is a rapidly proliferating AI infrastructure ecosystem.

There is momentum and a clear competitive imperative. What's next? Interest and adoption will inevitably plateau, but the democratization of access cannot be stopped. Experimentation will accelerate and every aspect of business will ultimately be affected. Opportunities associated with AI are proliferating, and the risk of doing nothing is compounding. A virtual arms race is not out of the question, although there is no guarantee that larger budgets will prevail.

No one can afford to be paralyzed by indecision under these circumstances. Clear objectives are required, along with a thorough picture of the risk environment. A concrete plan to execute AI strategy is best accomplished as a collaborative effort, reflecting the combined expertise of data scientists, engineers, risk managers, and business users. A continuous cycle of experimentation, application, and improvement should be expected.

The stakes are high enough that human supervision will be necessary for some time, regardless of how many processes are automated. As a result, we believe talent management will change dramatically. Technical knowledge and proficiency with AI applications may be valued as much as capital markets expertise. The ability to effectively prompt AI agents may become just as important as chatting with clients over canapés at a charity gala. The habits and expectations of a younger generation of “AI natives” may be quite different from their seniors.

Business leaders will need to understand the tectonic shifts caused by the growing use of AI and develop plans that maximize their opportunity set while minimizing risk. Much of this will be done by engaging with the right partners. After years of going it alone or observing from a distance, alternative managers will increasingly plug into the growing ecosystem of AI models, app developers, and integration specialists to find new ways to deliver value to their clients.

Lest anyone worry about being disintermediated by AI companies themselves, there is growing evidence that the source of competitive advantage is more likely to be found among the users of AI models rather than their creators. According to Sequoia, “The moats are in the customers, not the data. ... Workflows and user networks seem to be creating more durable sources of competitive advantage.”⁸

⁸ Sonya Huang, Pat Grady, GPT-4, “Generative AI’s Act Two,” Sequoia, September 20, 2023.

There is little doubt that AI will transform alternatives.

Every aspect of the business, from risk assessment to security selection, and client reporting to partnership accounting, will ultimately be reshaped. Rapidly morphing from innovative to table stakes, AI is already moving the needle. It is also raising the bar.

Ironically, the embrace of AI may mean the human touch becomes more important than ever. Speed, efficiency, and results count for a lot, but there will come a point when AI will be a “cheat code” available to anyone, allowing all firms to compete at an impressively high level. At this point, human characteristics, such as thoughtfulness and thinking outside of the box, may prove to be uniquely winning attributes, attracting clients and even outperforming competitors.



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