



HEDGEWEEK



TURNING POINT

THE NEW TECHNOLOGIES HELPING HEDGE FUNDS EVOLVE

EXECUTIVE SUMMARY

This year could prove pivotal for hedge funds' use of disruptive technologies. New HedgeWeek research finds the industry on the cusp of majority use of big data, artificial intelligence (AI), and blockchain for investment purposes. Among our survey sample, 50%, 40% and one-third of hedge fund firms, respectively, use these technologies to generate alpha. By January 2024, those not using them will likely be in the minority.

Why? Two key reasons. Firstly, recent advances within the industry – from its largest managers and vendors, and some innovative startups and technologists – have, or are set to, come to market. Secondly, advances outside the industry – headlined by ChatGPT – are helping take these technologies to the wider public, closing the knowledge gap and helping get investors and managers comfortable with the idea of, and uses for, AI.

Of course, it is (much) more complicated than that and this report, *Turning Point: The New Technologies Helping Hedge Funds Evolve*, supported by SS&C Advent, provides some colour and data.

Section one covers the use of AI within hedge fund investment strategies, touching on new developments around AI 'Level 3' products, and unearthing ongoing disagreements relating to definitions and marketing terms. Section two revisits the topic of data, and the mounting challenge managers face extracting value from it, while Section three asks a question seemingly at odds with the wider progress: why do so many hedge funds use AI in their investment strategies and so few use it as part of their inhouse operational infrastructure?

We hope you find value in the answers to these critical questions.

TONY GRIFFITHS
HEAD OF RESEARCH & INSIGHT

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METHODOLOGY

HedgeWeek surveyed nearly 60 hedge fund firms in January and February 2023 on the topic of disruptive technologies, with qualitative follow-up interviews taking place in March. Of the group surveyed, about half occupied one of the two ends of the 'sophistication spectrum', with 30% describing their investment style as 'systematic' and 25% as 'discretionary – traditional'. The findings in this report are based on the results of the survey, research interviews with named and unnamed hedge fund sources, and third-party data and intel.

KEY FINDINGS

1

Around half of \$1bn+ and startup hedge funds now invest using AI

More than half of large hedge fund firms (AUM \$1bn+) and nearly half of emerging managers (AUM <\$250m) now use AI/machine learning technologies to drive investment returns. However, there remains broad debate – and disagreement – around the way different firms define and market their AI. In a sector as sophisticated and secretive as AI technology, this continues to make measuring progress and quality an ongoing challenge.

2

ChatGPT is helping investors – and managers – get comfortable with AI

The hype around ChatGPT is helping hedge fund allocators, and some managers, become more comfortable with the idea of investing using AI. With 2023 set to see more AI innovations come to market from managers and vendors alike, this could prove timely. But as AI goes mainstream, and investors' understanding of the concept improves, this will result in even greater scrutiny of the definition and marketing of 'AI hedge funds'.

3

The data problem has evolved, and so have hedge fund managers' needs

Hedge funds' unwavering – and accelerating – need for data has seen 'the data problem' move on from one of access and availability to extracting value. But it also means that those needs are increasingly specific and hard to address, even at the bottom end of the AUM spectrum. Large hedge fund firms and vendors have developed new data tech to help. Time will tell if their solutions suit an increasingly varied group of managers.

4

Hedge funds remain resistant to the idea of using AI for inhouse ops

Though many hedge funds are exploring and embracing the benefits of AI within the investment process, some of these – and many others – remain resistant to the idea of using it within inhouse operations. However, swathes are readily enjoying the same benefits via outsourcing, and that number will increase as more vendors bring advances in RPA and AI to market in 2023, likely softening managers' views on AI for inhouse ops.

LEVELLING UP

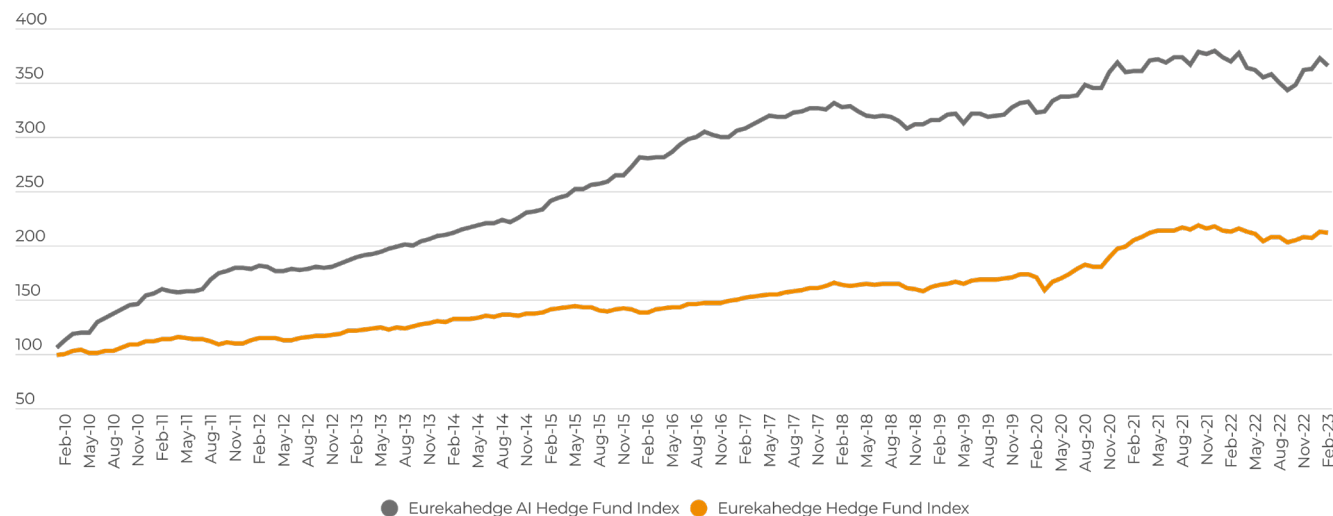
Recent technological advances – notably in AI – have put hedge funds on the cusp of next-level investment strategies. Is 2023 the year the industry achieves ‘true’ AI? Or has that already happened?

Earlier this year, the new CEO of Bridgewater Associates used a telling phrase to describe the increasingly important role technology, and artificial intelligence (AI) in particular, was playing at the world’s largest hedge fund manager. “Evolve or die,” said Nir Bar Dea. “That’s what’s happening here.” AI, he suggested during the interview with Bloomberg earlier this year, was going to help the \$140

billion firm improve returns, increase profitability, and keep pace with its peers. Because “just doing what we’ve been doing, isn’t good enough.”

In some ways, even Bridgewater is playing catch up. Renaissance Technologies, the world’s second largest investment firm by hedge fund AUM, has been generating returns



Fig. 1.1 Compound monthly return for AI hedge funds and all hedge funds as a VAMI chart, Jan 2010 - Feb 2023

Analyst note: Chart has both indices start at 100 in December 2009

Source: Eurekahedge, With Intelligence

from machine learning techniques for many years; Citadel has a series of AI initiatives to its name and is currently seeking a companywide license for ChatGPT, the open-source AI 'chat bot' launched in November; while Man Group, Europe's largest investment manager by hedge fund AUM, has developed proprietary database technology – ArcticDB – to drive investment decisions across its entire front office, including product innovation.

"At Man Group, we're often dealing with

asset classes that encompass an enormous universe of individual instruments – hundreds of thousands, in some cases – and the ability to represent such a large universe, and its evolution over time, in a single prime dataset and make decisions around that data quickly is invaluable," Gary Collier, CTO of Man Alpha Technology and head of the team behind ArcticDB, tells Hedgeweek.

Collier and his team's work on the technology that would become ArcticDB began in 2013. Ten

years later, the data needs of the wider industry have evolved in such a way that Man has launched ArcticDB as a product.

ENGINE, FUEL

For the hedge fund industry at large, a story that was first about data has been steadily developing into one in which AI plays a fellow protagonist.

"The two are inextricably connected – the

technology is the engine, and the data is the fuel," says Neil Chapman, CEO of Exabel, an Oslo-based front office technology firm that specialises in AI. "On the one hand, however powerful your engine, a Ferrari with no fuel is going nowhere. But on the other, you may have the highest-grade fuel and not have an engine that can burn it and turn it into something useful."

Of course, the use of AI by hedge funds is not new. Eurekahedge's AI Hedge Fund Index

dates back to January 2010, and outperforms the data provider's main hedge fund index over that time (see fig. 1.1). A recent survey by market intelligence specialist Market Makers, meanwhile, suggests most of the top 50 hedge fund managers will use AI to achieve portfolio returns this year.

But there is a growing sense that advancements in the field over the past 12 months, headlined by ChatGPT, represent a turning point for the way AI is applied.

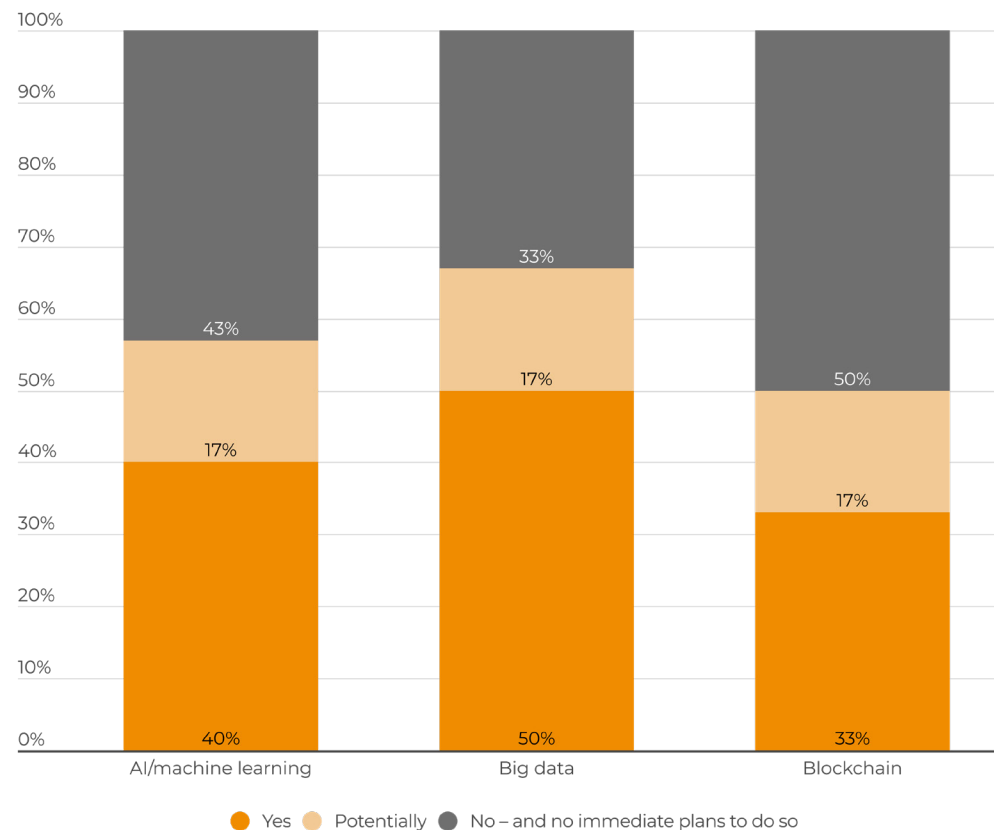
Speaking on a recent episode of the Goldman Sachs Exchanges podcast, Kash Rangan, head of US software coverage at the investment bank's research division, said "this new chapter of AI" was exciting because it's "not just about prediction, but it's about generating". Notably, today's AI can generate code.

Hedgeweek research from Q1 2023 shows that hedge fund managers are utilising disruptive technology – including AI/machine learning, big data, and blockchain – in their quest to generate performance alpha much more than they are within their operational functions.

Some 40% of all hedge funds surveyed now employ AI/machine learning to improve their investment performance (see fig. 1.2). About half employ big data and one-third use blockchain. Only 16% said they were not using any of the three technologies to improve their investment strategy.

By manager AUM, our survey sample suggests most established hedge fund firms – those

Fig. 1.2 Hedge fund firms using disruptive technologies to improve their investment performance



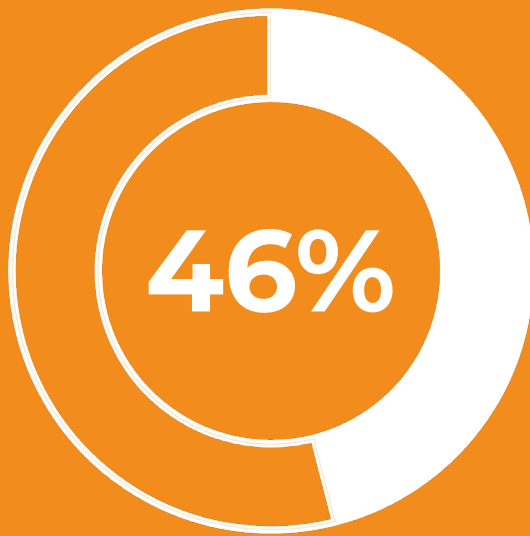
Analyst note: Potentially represents respondents that either use a technology to improve operations but not investment performance or don't use the technology currently but are exploring its use in some capacity.

Source: Hedgeweek Manager Survey, Q1 2023

KEY FINDING

Large hedge funds and start-ups are driving uptake in AI – not mid-sized firms

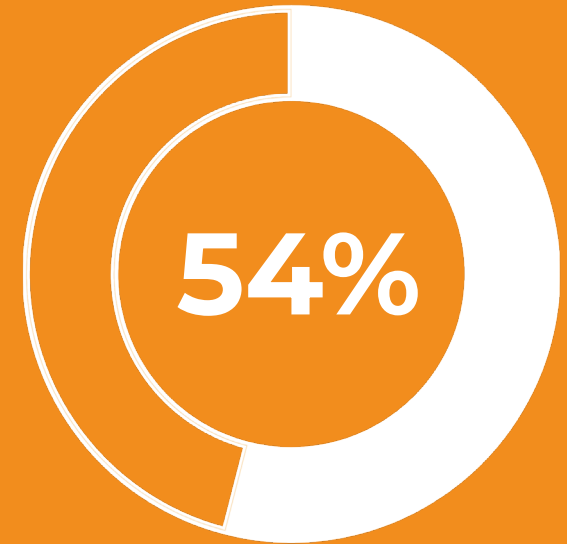
Proportion of respondents within Hedgeweek's survey pool to report the use of AI and/or machine learning technologies within an investment strategy



AUM <\$250m

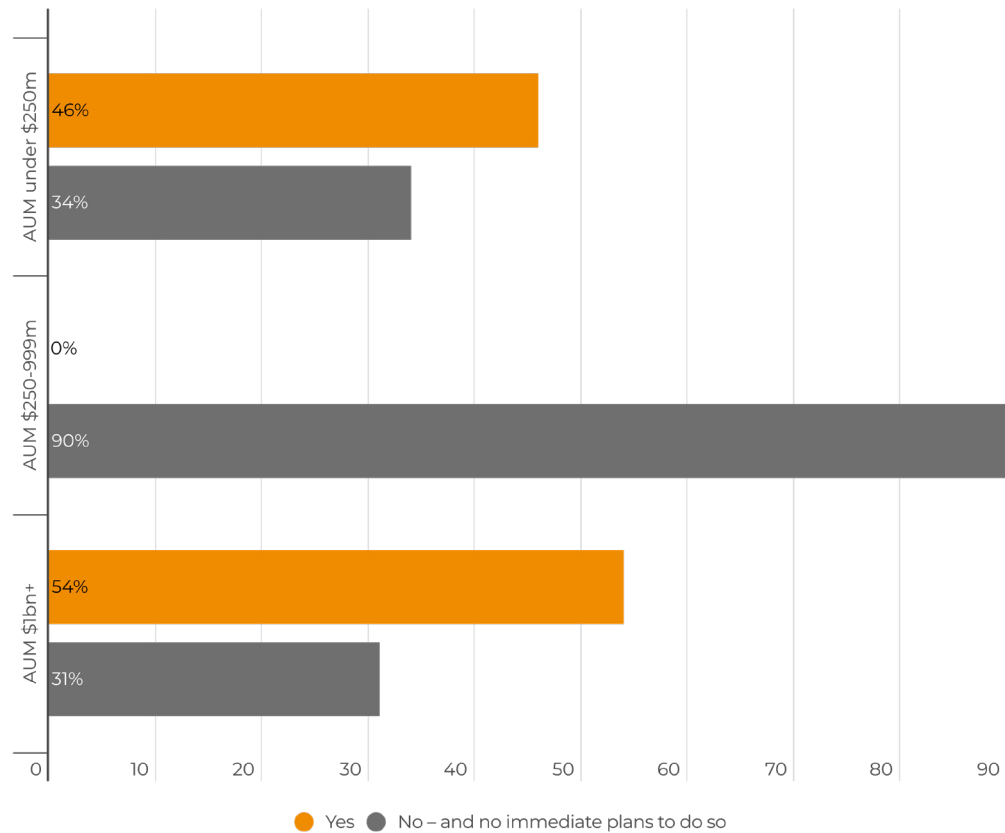


AUM \$250-999m



AUM \$1bn+

Fig. 1.3 Hedge fund firms using AI/machine learning to improve their investment performance



Source: HedgeWeek Manager Survey, Q1 2023

with at least \$1 billion in AUM – use AI/machine learning for performance alpha, as do nearly half of firms with AUM <\$250m (see fig.1.3). Intriguingly, none of the mid-sized firms surveyed do (AUM \$250-999m), potentially belying a group that possesses neither the resources of established firms nor the nimbleness and tech-savviness of start-ups. For many hedge fund managers, the lack of uptake is a matter of inaccessibility to the technology rather than disinterest in, or distrust of, the concept of AI.

Thomas Schmiedel, CTO and co-founder of AI technologists Rubinstein & Schmiedel (R&S), reports a “far greater openness” towards AI among the hedge funds he speaks with than traditional asset managers. “Hedge fund professionals are more agile in their approach and understand the ideas much earlier than others,” he says. “From what we have seen, most asset managers are not up to speed – Excel is their tool of choice. They are not yet at a level where they could consider themselves digital or AI enabled.”

‘TRUE’ AI

Unsurprisingly, the adoption of AI and machine learning techniques by hedge funds differs by managers’ investment strategy style and technological sophistication.

According to HedgeWeek’s manager survey, 69% of systematic hedge fund firms have adopted AI/machine learning processes to generate alpha, compared to 13% of traditional discretionary hedge funds (see fig. 1.4). More

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While more-and-more hedge funds
have started to claim the use of AI for
marketing purposes, it is often applied as
an afterthought

Adrian de Valois-Franklin
CEO, Castle Ridge Asset Management

than one-third of tech-savvy discretionary hedge funds employ machine learning techniques in investing, as do 42% of hybrid strategies.

Combined with these groups' tentative steps into blockchain, this reflects a broad patchwork nature of AI adoption in the industry – one that has generated ambiguity and an increasing amount of debate.

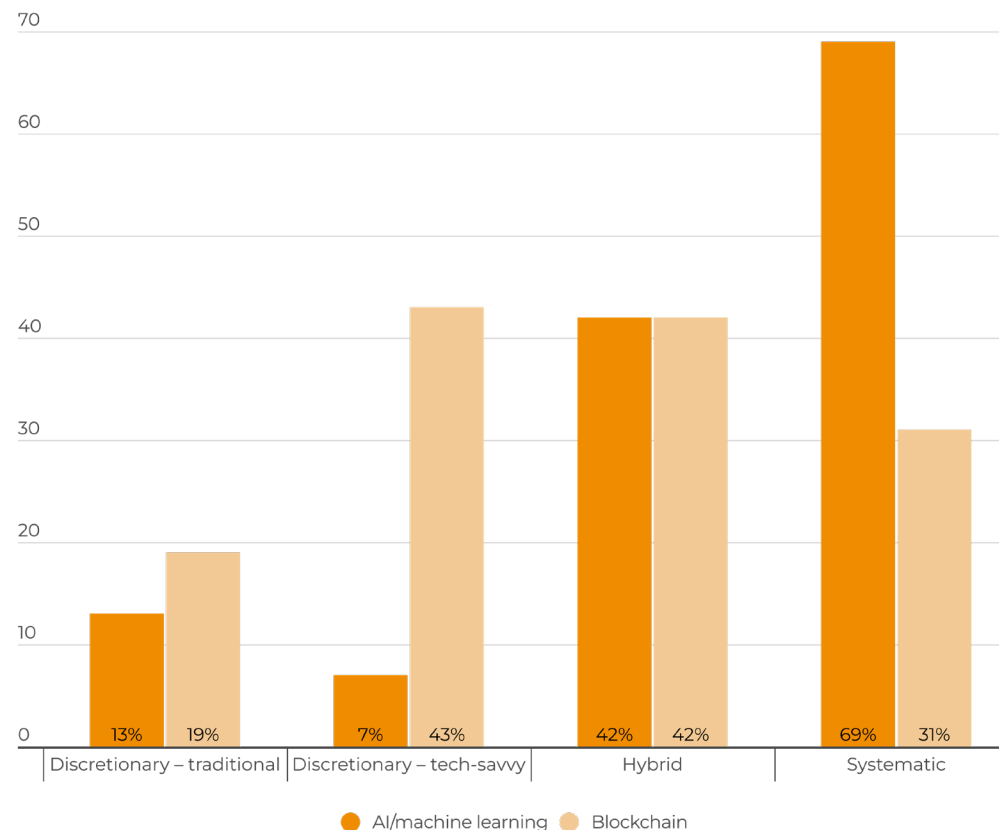
Adrian de Valois-Franklin, CEO at Castle Ridge Asset Management, a Toronto- and New York-based firm which runs a fully machine-based, self-evolving AI market neutral hedge fund, believes there are essentially very few “pure play” AI/machine learning hedge funds, designed by AI from the ground-up, globally.

“While more-and-more hedge funds have started to claim the use of AI for marketing purposes, it is often applied as an afterthought to strategies that were designed by human portfolio managers,” de Valois-Franklin says. “Adding further confusion, many firms now quote a ‘quantamental’ approach – this often translates to a glorified AI screening tool, with humans overriding the AI decisions due to a lack of confidence or transparency in the system.”

Technologists have sought to assist by defining clear ‘levels’ of AI sophistication.

R&S subscribes to the idea of three levels of AI in investment management – with the top level reserved for AI strategies using “deep reinforcement learning” (see boxout). The Switzerland- and Germany-based firm achieved what it calls Level 3 in 2019 through

Fig. 1.4 Hedge fund firms using AI/machine learning and blockchain to improve their investment performance, by firm investment style



Source: HedgeWeek Manager Survey, Q1 2023

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Time will tell if the debate over the term ‘AI hedge fund’ has hampered progress, especially with allocators.

its ‘Marvin’-family of AI trading models, which recently moved from digital assets to equities, with commodities next, “on the path of becoming a fully AI-managed multi asset fund,” says Schmiedel.

Some believe this type of product would be a first for the investment management industry. Others disagree, saying ‘Level 3’ products of this ilk utilising ‘deep reinforcement learning’ have already been brought to market. Of course, it is difficult to measure the claims of any firm working with such sophisticated – and secretive – techniques. It is notable that some managers suggesting the existence of ‘Level 3’ products use hierarchies of AI extending to four levels or more.

Time will tell if the debate over the term ‘AI hedge fund’ has hampered progress, especially with allocators.

Either way, Schmiedel suggests hedge fund firms are well placed to take AI forward,

possessing the type of “contrarian thinking” required to adopt unfamiliar technologies. In the recent past, it has seen them embrace algorithmic trading. In the not-too-distant future, it should see them embrace ‘true’ AI – investment strategies without the safety net of meaningful human involvement in the decision-making process. ■

KEY TAKEAWAY

However it is defined, the next level of AI hedge fund strategy is being deployed here, in 2023. The extent of technological progress may be hard to measure, but the fact these strategies are arriving in short proximity to ChatGPT means this year will be significant, if only in terms of wider industry acceptance and interest.

The path to Level 3

The three levels of AI sophistication in investment management, according to Rubenstein & Schmiedel.

LEVEL 1

Classical statistical models where AI optimises a very limited set of parameters in a predefined and simplistic rule-based setup. Outputs can be correlations, portfolio weights, optimal parameters to technical indicators, risk limits and so on. They are used to assist portfolio managers in their decision-making processes, and the use of the results ultimately is at the discretion of the human trader.

LEVEL 2

Exemplified by data mining and pattern recognition. Classical machine learning algorithms such as random forest, kernel regression, support vector machine and shallow neural networks are able to identify

repeating patterns within large pools of data and give complex insights. However, they are still a tool to the human trader and provide results in the form of sentiment scores, chart alerts, and trade recommendations.

LEVEL 3

The most sophisticated approach to AI. Here complex (typically deep-learning) models are created where the strategy is not limited by the model, but only by the data. This is achieved by the use of deep reinforcement learning, large-scale neural networks and suchlike. These systems have all degrees of freedom to decide, without human limitation on features generation, asset selection, investment decisions, risk management, optimal allocations, and trade creation and even execution optimisation. Once Level 3 is reached, the system can autonomously trade and constantly adapt to changing environments.

CUTTING THROUGH THE NOISE

Hedge funds' use of and need for alternative data continues to increase. Today, the problem is less about how to get enough, and more about how to manage what you have – and extract value.

The spread of data into hedge fund managers' investment process – driven by an accumulation of investment opportunities, reporting requirements, and technological advancements – continues to accelerate.

In the run up to next year's switch from T+2 to T+1 for US equities, a recent study by Gresham Technologies found that 90% of global hedge funds, asset managers, and fund administrators had increased their number of external data feeds in the past 12 months.

Hedgeweek's own research suggests hedge funds' use of big data as a driver of performance alpha is currently more visible than the use of artificial intelligence (AI). While quant managers are inevitably the biggest users, close to 40%

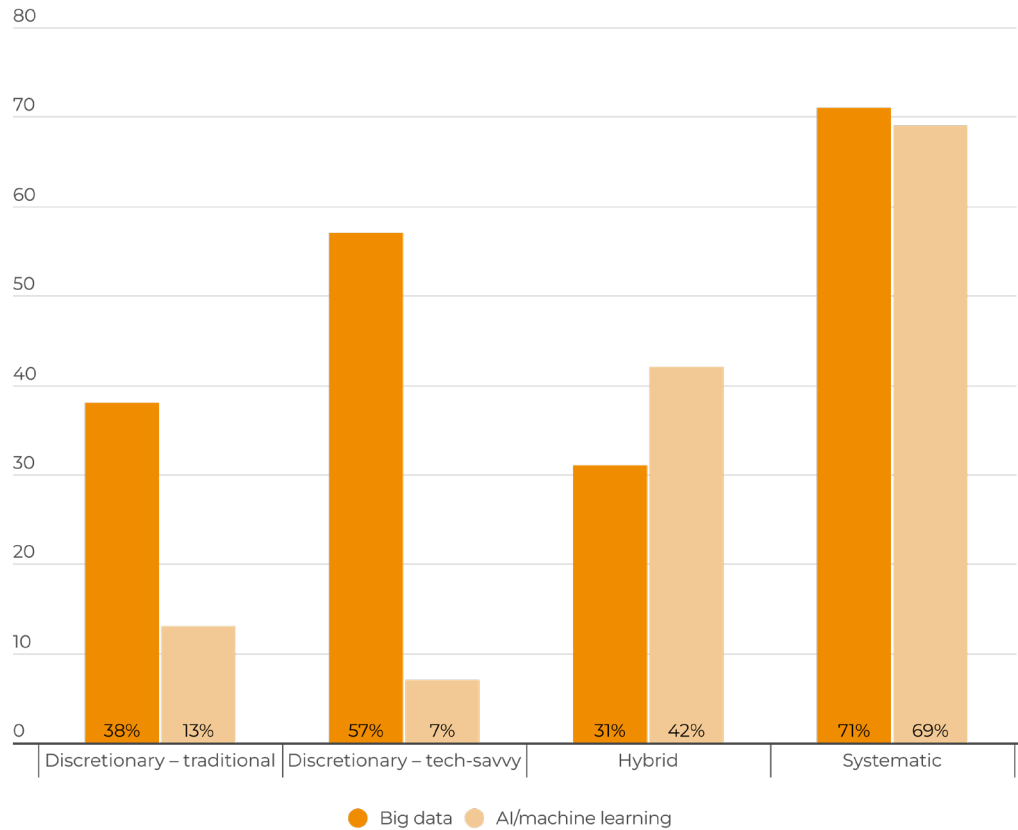
of traditional discretionary managers now employ data in their investment process, with that number rising to 57% among tech-savvy discretionary firms (see fig. 2.1).

Data's ability to deliver tangible performance alpha was brought into sharp focus last year when Citadel weaved complex weather pattern information into a series of successful trades in commodities markets, helping to push profits at Ken Griffin's long-running hedge fund giant towards \$16 billion.

Yet, having access to data is not enough. In 2023, the bigger challenge is homing in on what you need. More than half the portfolio managers and investment analysts surveyed by fintech firm Exabel recently said 'too much' alternative



Fig. 2.1 Hedge fund firms using big data and AI/machine learning to improve their investment performance, by firm investment style



Source: Hedgeweek Manager Survey, Q1 2023

data and difficulties prioritising it was the biggest hurdle to extracting value (see fig. 2.2).

For tier one hedge fund firms – where the problems are idiosyncratic, and the resources are plenty – this has usually meant creating new capabilities inhouse.

The likes of Citadel, Millennium Management, Point72, and Man Group have built large teams of engineers, data scientists, and analysts, and combined them with sophisticated tech infrastructure to turn sizable volumes of raw data into investment outperformance.

Speaking at Hedgeweek’s Technology Summit in 2021, Mark Brubaker, Point72’s CTO, said: “Very rarely is there something that’s out-of-the-box and adds value. In many cases, where that does exist, then the alpha is already gone.”

FRAMING THE PROBLEM

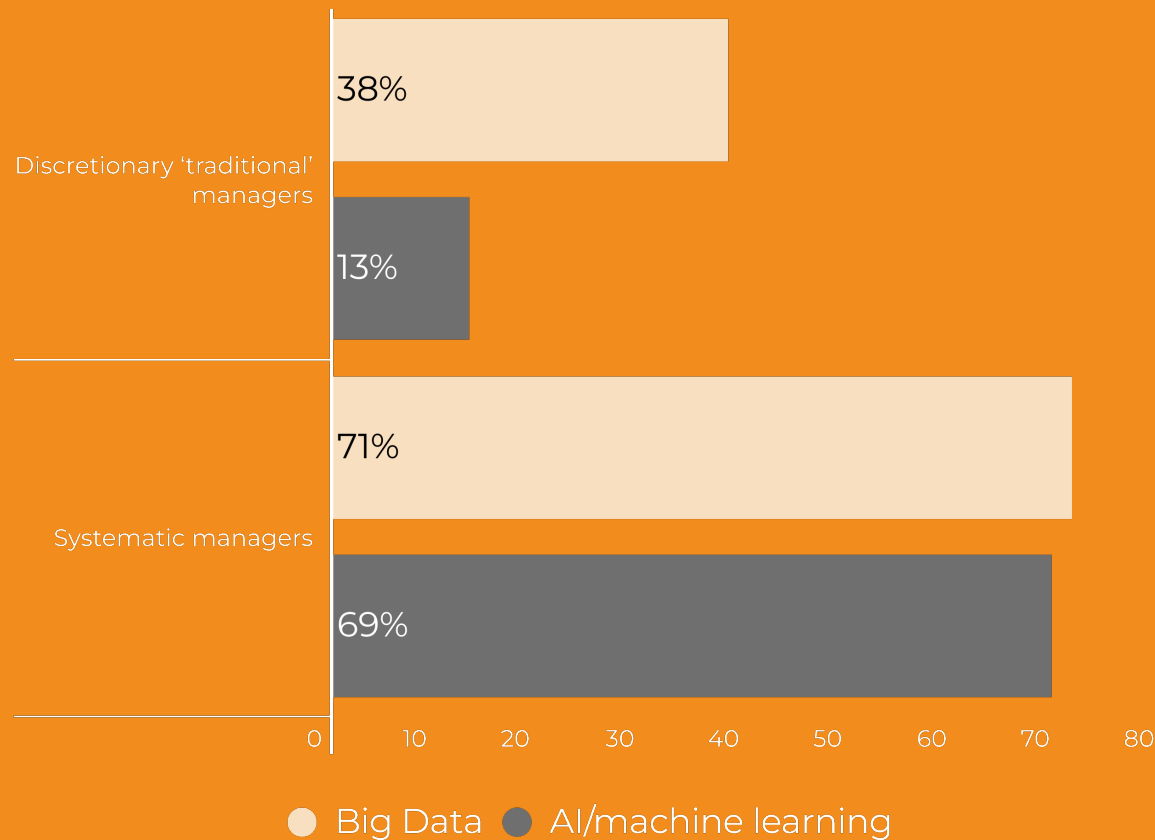
Man Group was required to look in-house to create the technology needed to cope with “the ever-increasing amount of data and complexity of front-office research,” says Man Alpha Technology CTO Gary Collier of the firm’s new database management tool, ArcticDB.

“Ten years ago, when we first started work on ArcticDB, the data problem space was more focused on time series data. In practical terms, this meant that data frames – the primary method for organising data and a very natural way for data scientists to think – were very long and very narrow,” Collier explains. “Within AHL, we had a growing need for something that could

KEY FINDING

Hedge funds at both ends of the sophistication spectrum are more likely to use 'Big Data' than AI/machine learning to generate alpha

Hedgeweek survey respondents reporting the use of Big Data and AI/machine learning technologies within an investment strategy



scale horizontally in a way that was a challenge for the third-party vendor solutions we were using at the time.”

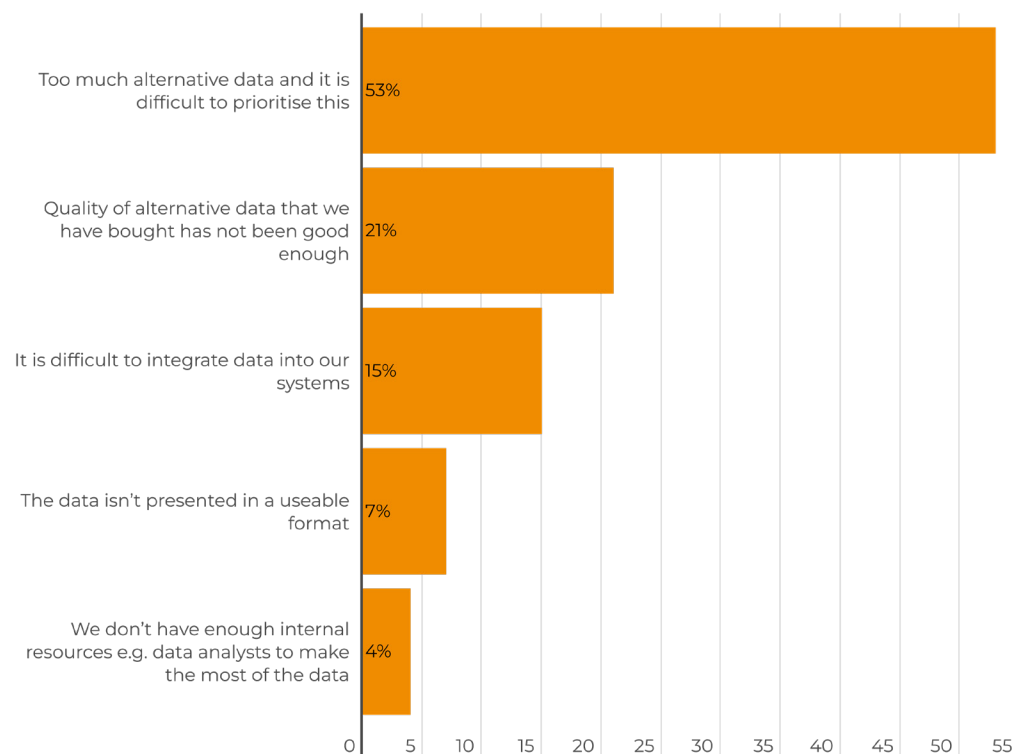
Today, the data frames being used at many investment management firms are vast in both width and length. For reference, Collier says quantitative analysis of a contemporary corporate bond universe might require a data frame 500,000 columns wide and millions – even billions – rows deep (see boxout).

Ultimately, Collier believes investment professionals can benefit from having access to as much data as possible – the challenge they face is managing that data, determining what’s valuable and extracting that value. “There’s a finite set of truths about financial assets and the more relevant data you have and can process effectively, you can get incrementally closer to understanding what those fundamental truths are, which in turn helps you understand how a particular asset might behave in future”

In 2023, consumer spending data is one such ‘asset’ being explored by fund managers, with 76% saying it will provide an ‘outsized’ information edge in the near future, according to Exabel research.

“If you are a hedge fund who has consumer or retail names in your portfolio, for example, it is verging on irresponsible not to have access to the kind of transaction data that can give you early insights,” says Exabel CEO Neil Chapman. “If you don’t have it, then you’re taking on a significant risk on behalf of your investors.”

Fig. 2.2 Most significant barrier to extracting benefits from alternative data according to active equity managers



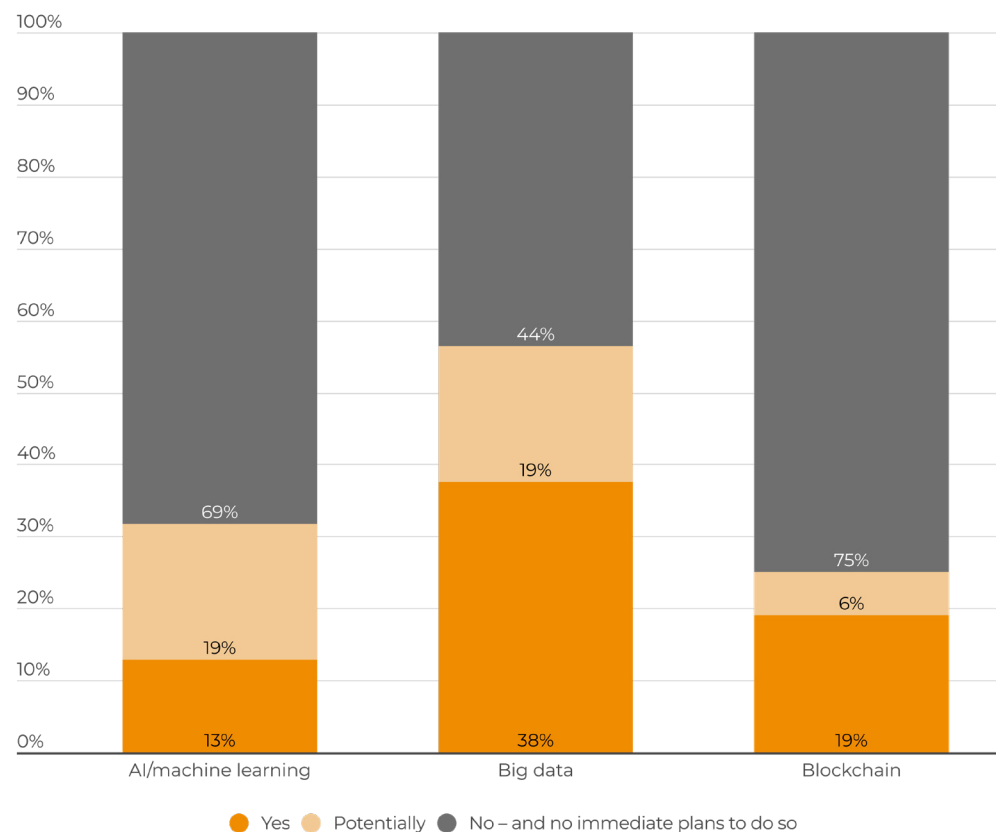
Analyst note: Chart covers a survey of 100 active portfolio managers and investment analysts from discretionary public equity funds

Source: Exabel, Alternative Data for Investment 2023, March 2023

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Data is constantly evolving, so the
problem is always evolving

Gary Collier
CTO, Man Alpha Technology

Fig. 2.3 Traditional discretionary hedge fund firms using disruptive technologies to improve their investment performance

Analyst note: This chart covers survey respondents that labelled their firm 'Discretionary (traditional)' as opposed to 'Discretionary (tech-savvy)', 'Hybrid', or 'Systematic'. Potentially represents respondents that either use a technology to improve operations but not investment performance or don't use the technology currently but are exploring its use in some capacity.

Source: HedgeWeek Manager Survey, Q1 2023

DIGITISING CREDIT MARKETS

Among traditional bottom-up strategies, HedgeWeek's manager survey suggests clear fault lines over tech take-up remain. While 38% of discretionary managers now use big data in their investment strategy – the top score for the three technologies covered here – a greater proportion said they had no plans to (see fig. 2.3).

Industry participants note that certain fundamental strategies, particularly equity-focused funds and the more illiquid credit portfolios comprising stressed and distressed space, are less readily applicable to data-heavy trading.

In the credit markets – where swathes of the information flow remain in the analogue age – vendors are looking to provide hedge fund clients with a timely edge as new opportunities emerge in both public and private spheres.

"Many hedge fund managers seeking bigger returns are looking beyond equities at other interesting asset classes, such as loans and private debt," says Aani Nerlekar, Senior Director, Solutions Management and Consulting at SS&C Advent. "The collapse of Silicon Valley Bank – and the ripples of related events throughout the bond markets – could further fuel this trend."

As Nerlekar notes, the credit market has historically been underserved by automation and technology, with the flow of loans and credit agreements in PDFs, emails and even faxes.

Disrupting data frames

Gary Collier, CTO of Man Alpha Technology, the front office technology arm of Man Group, on the evolution of data frames

The challenge of extracting value from ever-increasing datasets is one shared by the entire investment management industry. The first public-facing version of ArcticDB – our Python-native DataFrame database – was launched on GitHub in 2015. So far, it has had over a million downloads.

Today, the data frames used by many investment managers look a bit like an Excel spreadsheet – just much, much bigger. For example, quantitative analysis of a contemporary corporate bond universe might require a data frame 500,000 columns wide and millions – even billions – rows deep.

But even that's a simplistic view. Those investment firms running complex back tests may require a model that uses 1,000 or even 10,000 data frames, with data that changes in shape and size. Corporate bond or tick data, for example, can be sparsely populated, meaning the whole shape of the data is time varying. Veracity and provenance are other important characteristics. That

is, it's important to know how data looks at the point it was issued, and what changes were made and when, not just after it's been corrected.

WHAT NEXT FOR DATA FRAME TECHNOLOGY?

There are many exciting items on our immediate roadmap. We're talking with firms across different industries and sectors – from data vendors to investment banks and technology companies – and everybody seems to have a data problem and is reimagining their data platform.

Is it just coincidence that these data platform problems are emerging at the same time? If I'd asked each institution every year over the past 10 years, would they have said the same thing? Data is constantly evolving, so the problem is always evolving. That creates huge potential for technologists to go in and disrupt the way many firms, in many industries, operate.

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Today, the data frames used by many investment managers look a bit like an Excel spreadsheet – just much, much bigger.

“The next step for our industry – and where we are focused – is automating and digitising agent notices into actionable data delivered to an investor or a manager's downstream systems.”

Hedgeweek expects few hedge fund firms to resist the advantages of – and developments around – big data for long. In part, because of the edge it is providing an increasing number of their competitors. But also, because addressing it today, will help minimise issues in the future.

As Man Alpha's Collier says, data is constantly evolving, so the problems facing managers are always evolving, too. “If you're in the business of dealing with problems, you're in the business of dealing with data – and you need technology that can help your process that data and extract value as efficiently as possible.” ■

KEY TAKEAWAY

Hedge funds' unwavering – and accelerating – need for data has seen 'the data problem' move on from one of access and availability to extracting value. But it also means those needs are increasingly specific and hard to address, even at the bottom end of the AUM spectrum. Large hedge fund firms and vendors have developed tech to help. Time will tell if their solutions suit an increasingly heterogenous group of managers.

DIGITISING THE WORKFORCE

Many hedge fund COOs appear resistant to the idea of deploying AI – and similar types of disruptive technology – inhouse. But that’s only part of the picture.

On the surface, hedge funds’ uptake of disruptive technologies within their operations appears slow.

According to Hedgeweek’s survey, only 14-16% of hedge fund managers use either artificial intelligence (AI), big data, or blockchain as part of their operational functionality (see fig. 3.1), despite the potential for improved transparency and efficiency, reduced costs, and stronger risk oversight.

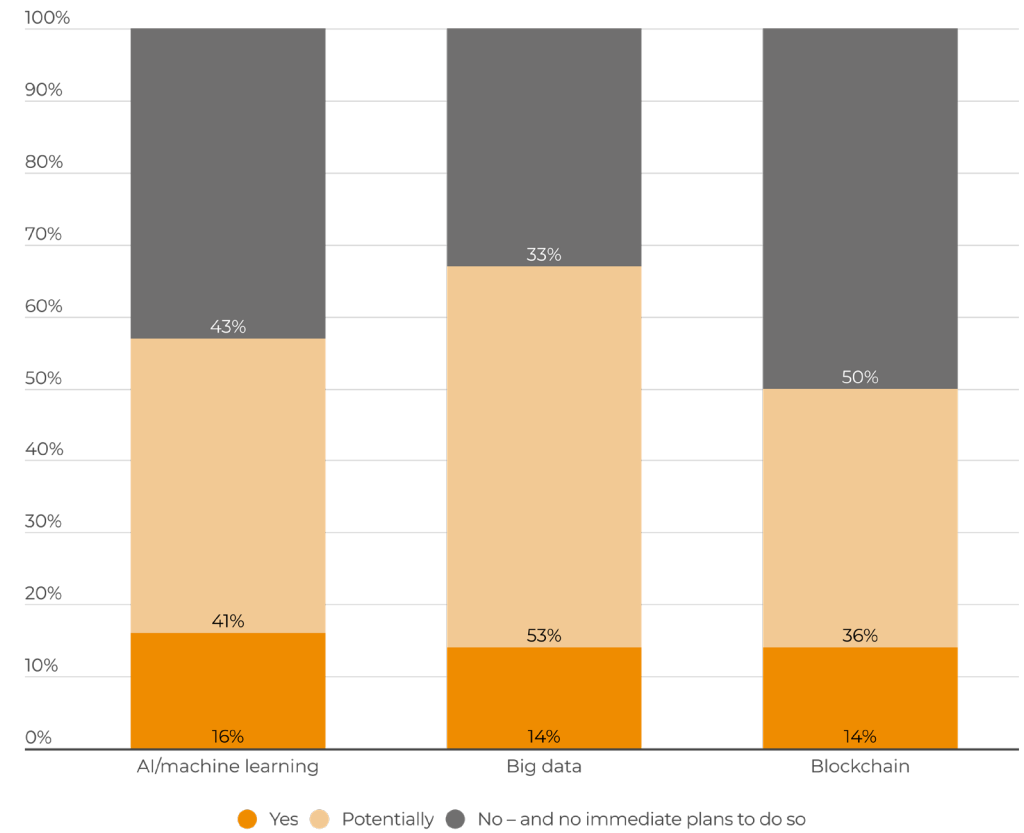
Further analysis finds the adoption of blockchain enhancements for operational alpha particularly mixed. Crypto-focused firms inevitably are the biggest users: almost one-quarter (23%) of the digital assets hedge funds within our survey pool use blockchain technology to improve business operations, with some 85% using it to improve their investment strategy.

By comparison, take-up within the hedge fund mainstream remains comparatively patchy – 33% of all managers use the blockchain for performance reasons, 14% to strengthen operational functions.

Of particular note to some observers has been the seemingly sparing use of AI in the middle- and back-office. Indeed, about a quarter (23%) of large hedge funds surveyed use AI/machine learning for operational purposes. That number dips to under 20% for firms with smaller AuMs (see fig. 3.2).

“I’ve been surprised at how few hedge funds have been incorporating AI technologies into their businesses,” admits Benjamin Truitt, CEO of Spire Fund Advisory, a US-based hedge fund manager that uses AI in its investment strategy and operations.

Fig. 3.1 Hedge fund firms using disruptive technologies to improve their business operations



Analyst note: Potentially represents respondents that either use a technology to improve investment performance but not operations or don't use the technology currently but are exploring its use in some capacity.

Source: Hedgeweek Manager Survey, Q1 2023

However, Truitt also suggests that the launch of OpenAI's ChatGPT last year is proving to be a turning point. "AI is now something people can touch and feel," he explains. "It [ChatGPT] is helping investors – and managers – get more comfortable with the technology."

CHATGPT

Hedgeweek research suggests ChatGPT is already having a material impact on the way hedge fund businesses operate. Nearly 15% of all hedge fund managers surveyed said they currently use ChatGPT (see fig. 3.3), which could be considered high given the short runway: the technology – which can quickly summarise lengthy documents and provide in-depth responses to often complex questions, among other things – debuted in November 2022, just a few months before our survey.

A similar proportion of all survey respondents are actively exploring ChaptGPT but have not yet adopted it.

If both camps are outweighed by the 36% with no plan to use ChatGPT in their business, the fact digital assets managers – frequent first-adopters of advanced tech – have a higher rate of respondents with no plan to use it (46%) supports the idea that ChatGPT could have a greater bearing at less tech-savvy firms.

But to focus on the in-house application of disruptive technologies within hedge funds' operations is to see only part of the picture. For most managers, the benefits of AI, machine learning strands like Robotic Process

KEY FINDING

Use of disruptive technologies remains much less common in ops than investment

Firms using one or more featured disruptive technology (AI, Big Data, blockchain) within their investment strategy and operations.



Operations: 16%



Investment strategy: 50%

Automation (RPA), and blockchain within operations will be delivered – and shared – by third parties, notably outsourced service providers.

Arguably, the trend for tech-enabled outsourcing gained traction in the late 2010s, as new regulation mounted globally and many hedge funds – including some of the industry's biggest firms – realised their operational infrastructure was inadequately positioned to process the new requirements and scale for future ones.

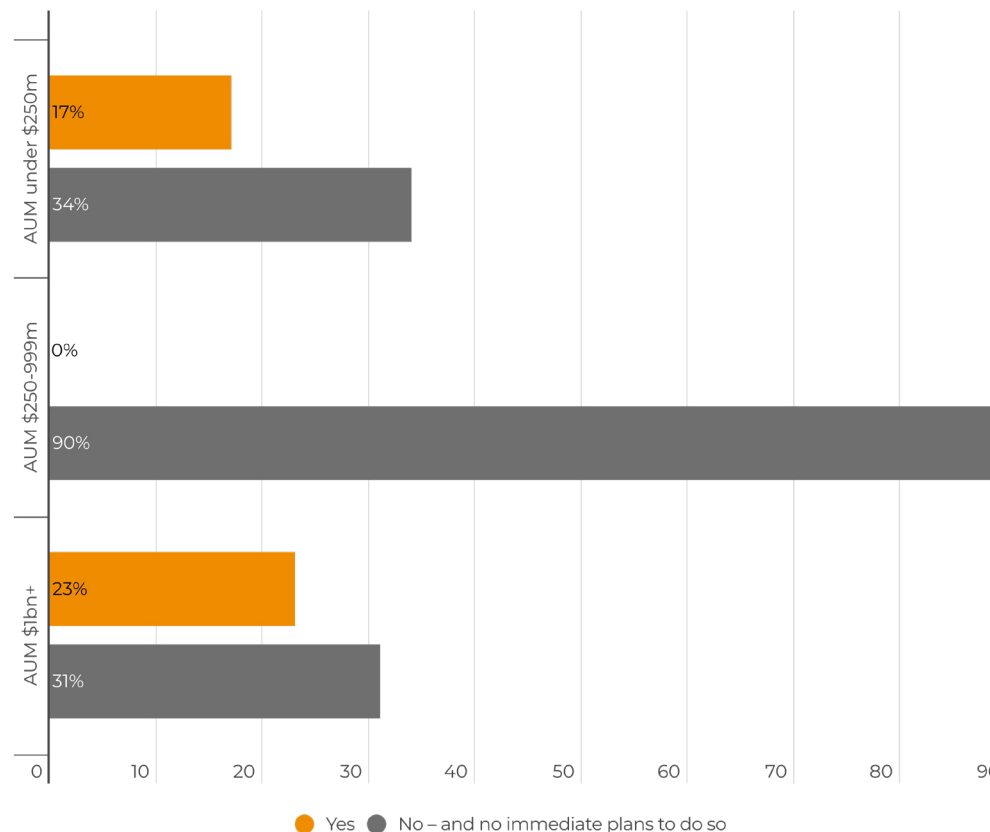
Today, heightened demand from hedge funds for tech-enabled middle- and back-office solutions is evident in product and service development. In the six weeks since the start of March alone, the Hedgeweek platform has captured five news items about new or enhanced third-party solutions marketing the use of AI, ChatGPT and/or alternative data.

As a result, though the number of hedge funds reporting in-house deployment of disruptive technologies to enhance their operations is, and will likely remain, relatively low, the number with access to the benefits of such technologies is poised to accelerate as more and more enhancements come to market.

Indeed, 2023 could prove a pivotal year for hedge funds' use of AI in their back-office setup – if only indirectly.

SS&C, one of the industry's largest managed service providers and fund administrators, made headlines last year by acquiring UK-based robotics RPA company Blue Prism. The

Fig. 3.2 Hedge fund firms using AI/machine learning to improve their business operations



Source: Hedgeweek Manager Survey, Q1 2023

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I've been surprised at how few hedge funds have been incorporating AI technologies into their businesses

Benjamin Truitt
CEO, Spire Fund Advisory

Rise of the digital worker

Aani Nerlekar, Senior Director, Solutions Management and Consulting, SS&C Advent, discusses the trend towards 'digital workers'

Digital workers, or intelligent automation programs, are designed for tasks considered low value by human workers, such as monitoring files or generating and scheduling reports. Firms still want – and need – humans to investigate issues, but there is a growing role for AI in hedge fund operations.

Hedge fund managers do not appear to employ digital workers in the back office. However, they are outsourcing many manual back-office functions. When they do, they expect their provider to complete those tasks quickly, accurately, and reliably via state-of-the-art technology. From that perspective, the demand for digital workers and their skill sets is increasing.

One notable trend we're seeing is fewer hedge funds hiring staff to deliver in-house reconciliation, ensuring data flows back and forth between different systems. Reconciliation is a task well-suited for automation.

Digital workers aren't suited for all

operational functions. As a service provider and partner, we are responsible for supporting our clients, who, in turn, are mandated to generate alpha for their investors. Getting the balance right between digital and human workers is crucial.

When communicating with managers, the human touch is – and will continue to be – extremely important. Furthermore, when investors request ad hoc reports, they expect the same investment-level information sliced in various ways. For a new report, it can be challenging for a digital marketer to deliver what is required. As a result, human oversight here is useful.

Ultimately, nothing is more critical to a hedge fund than assessing risk and generating alpha. But if the functionality of the back office drives the data needs of the front office, communication between the two is vital. This is where holistic, proven solutions – coupled with digital workers – are imperative to the success of a hedge fund's quest to generate alpha.

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Indeed, 2023 could prove a pivotal year for hedge funds' use of AI in their back-office setup – if only indirectly.

investment technology specialist has since made progress in incorporating Blue Prism's RPA into its servicing offering.

According to Aani Nerlekar, a Senior Director in SS&C Advent's Solutions Management and Consulting division, the group is integrating RPA into its workflows and hopes to give investment manager clients access to the benefits of Blue Prism later this year.

Nerlekar notes many hedge fund operations professionals are still sceptical about deploying AI in-house. But, he says, demand is increasing for the benefits of digital workers as more hedge funds find operational functions to outsource, such as reconciliation (see boxout).

TWO FINAL HURDLES

This sentiment chimes with the findings from Hedgeweek's November 2023 Insights report, which showed that most heads of the operational function at hedge fund firms view their role as a mix of people, process, and

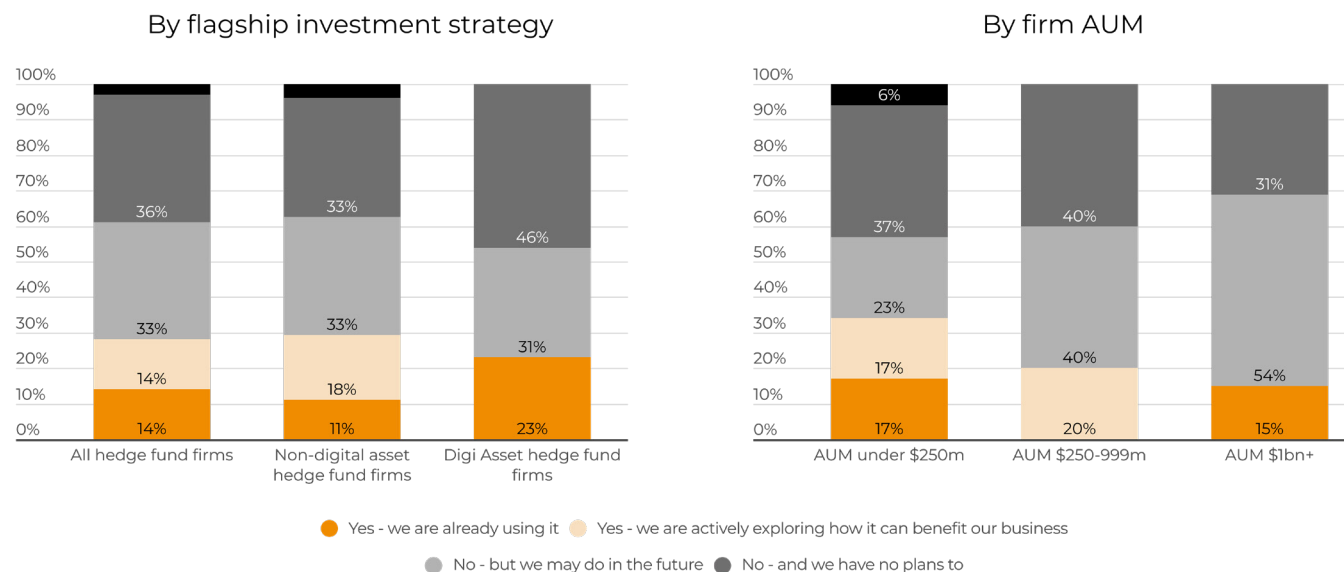
technology management, in contrast with just 8% who see their position as chiefly tech management.

This also suggests hedge funds are retaining a degree of human oversight and control in business and operational functions – a trend that Nerlekar is also seeing.

If one obstacle preventing some hedge funds fully embracing AI within their operational setup is lingering discomfort with the idea of replacing human workers with AI, a second is overreliance on legacy technology.

While many managers are keen on pursuing the latest in disruptive technology, some remain hindered by old and inflexible systems, coupled with a lack of in-house technical talent that needs to be addressed.

Nerlekar believes hedge fund firms using legacy technologies struggle to evolve their business and provide the best returns to investors. He explains: "A hedge fund manager's goal

Fig. 3.3 Hedge fund firms exploring the use of ChatGPT within their business in some capacity

Analyst note: Digital asset hedge fund firms are those respondents that labelled their flagship strategy as digital assets focused. Non-digital asset hedge fund firms are all other respondents.

Source: Hedgeweek Manager Survey, Q1 2023

is to source investment opportunities and generate alpha. As tech specialists, we aim to constantly evolve our technology and modernise our platform using the latest AI and machine learning advances. To that end, when we work with a firm with existing legacy technology, we recommend partnering with a technology specialist and complementing a modern technology platform with additional managed services offerings."

Technology modernisation and managed services are a resonant pitch in today's volatile trading conditions. The prospect of evolving a vast and disparate network of legacy technologies while trying to monitor and capitalise on unprecedented market movements will likely concern even the most agile fund managers. ■

KEY TAKEAWAY

Though many hedge fund firms are resisting the idea of having certain back-office technologies inhouse, swathes are readily enjoying the same benefits via outsourcing, and that number will rapidly increase as more larger vendors bring advances in RPA and AI to market. These are the first steps towards holdout managers becoming comfortable with AI in their back office.

HEDGEWEEK

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