

DATA ANALYTICS AND TRADING EFFICIENCY POST-COVID-19:

HOW AI AND MACHINE LEARNING
ARE HELPING TO OVERCOME VOLATILITY
FOR THE BUY-SIDE AND SELL-SIDE





“A great interactive platform for market participants to engage around the most relevant current topics and insightful views around future possibilities.”

Simon Steward, Head of European Trading, **Capital Group**

“A top interactive virtual event for industry leading experts that provokes great debate and insights.”

Paul Battams, Head of Equity Trading, EMEA, **Blackrock**

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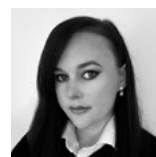
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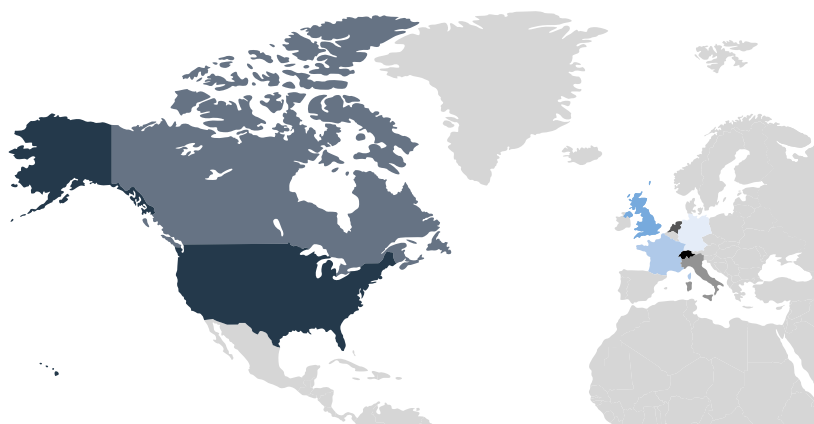
Anna Andrews,
Conference Director,
**TradeTech Europe
2021**

METHODOLOGY

In Q1 of 2021, WBR Insights surveyed 100 Heads of Trading and similar from buy-side and sell-side firms across Europe, to find out about the challenges they are facing in 2021, due to the impact of the COVID-19 pandemic, and the innovative solutions they are putting in place.

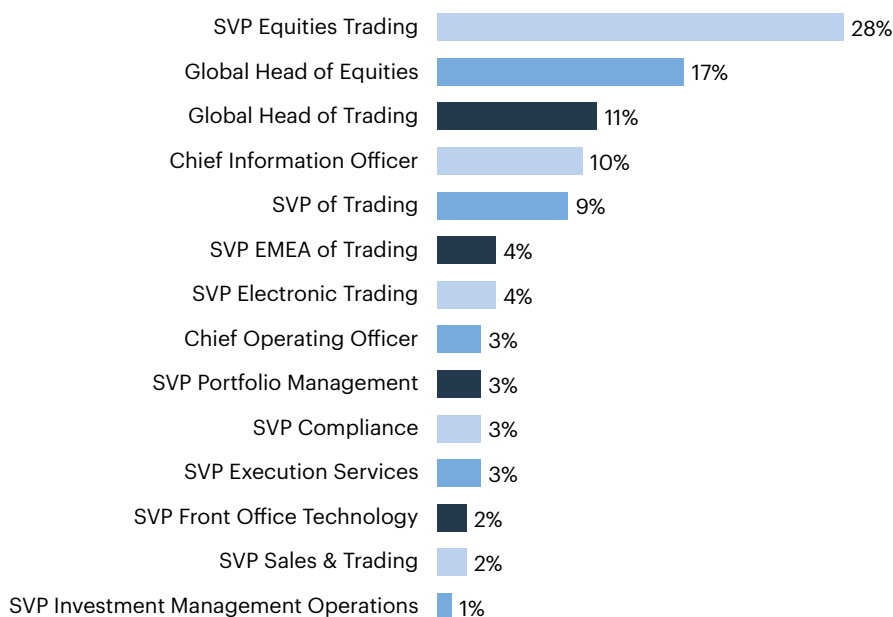
The survey was conducted by appointment over the telephone. The results were compiled and anonymised by WBR Insights and are presented here with analysis and commentary by Altair, Deutsche Börse, Iress and the TradeTech Europe community.

IN WHICH COUNTRY IS YOUR COMPANY HEADQUARTERS LOCATED?

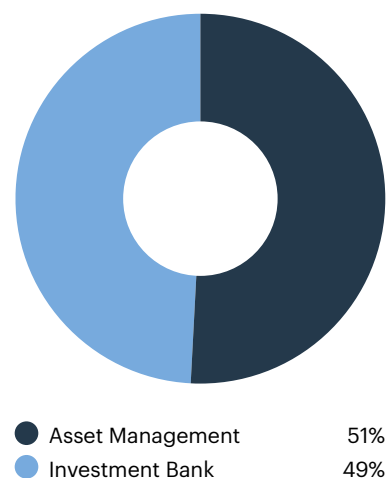


USA	30%
Canada	18%
UK & Ireland	13%
France	10%
Germany	10%
Switzerland	10%
Netherlands	6%
Italy	3%

WHAT IS YOUR ROLE?



WHAT IS YOUR INDUSTRY?



Artificial intelligence and machine learning - just part of the furniture?

By Eugene O'Herlihy, Executive General Manager - Trading and Market Data UK, Iress

There's no doubt that the global growth of data and analytics in the trading space over the past decade has helped achieve consistent execution at optimal throughput. As financial markets participants look to the future, artificial intelligence (AI) and machine learning (ML) are now the hot topics on the tip of many a tongue.

In 2019 Gartner predicted that AI software would create \$2.9 trillion of business value in 2021. Indeed, 80% of firms in this research are looking to, or have already, adopted this technology in the front office. But what are its limitations? Do current markets present a situation where AI and ML can help with trading strategies?

Junk in, junk out

AI is only as good as the models being built, which rely, in part, on ML, which in turn is reliant on the underlying data consumed. The old adage of junk in, junk out still applies - but what constitutes junk? Is it incorrect data, too short a time series, or misinterpreted data?

One study mentioned that in early 2020, complaints about Amazon scented candles more than doubled. Looking deeper, it coincided with the rise of COVID-19 when many people were losing their sense of smell. Data has to be interpreted correctly and fully understood; if it's not then it has no value which renders any AI model useless.

Can AI models give firms an edge?

Let's take the rise of retail as an example of how markets have changed in recent times; could models have given firms an edge?

At Iress we've seen a 200% increase in retail volume over our UK RSP network to our market makers. In the US, some reports show 25%+ of trade volume is retail.

Technology change facilitated the social media boom resulting in messaging boards, such as Wall Street Bets, attracting millions of participants acting more like one cohesive unit. Meme stocks have appeared and gone viral. Barriers to entry have been lowered with low/no commissions and fractional trading. Social influence played a part with a move against the finance machine.

The result? Sentiment-based trading took over in many stocks now familiar to anyone who reads the news. We have adapted by introducing increased market maker protection mechanisms for our clients, but could ML and AI have helped clients further?

Stocks evidently behaved 'irrationally', so it appears no amount of historic data could have predicted the sudden change. Alt data requests rose as firms tried to understand what was going on in chat rooms and bulletin boards. However, even the 'meme language' used on such platforms changes and evolves over time. With the basic language constantly changing, what hope do machine based models have to understand what's going on?

The future for AI and ML

While it is hard, near impossible, to predict the future of markets, models can help consume vast amounts of machine readable news, understand algo performance, create know-your-client models, trade ideas or enhance risk analytics. 'Enhance' is the key word here.

AI and ML is not going to take over the desk. It's a set of tools that hopefully provides traders and managers with more insight into their business, clients and markets. By embedding these models into the workflow process they have potential to add value.

The traditional trading tools on the desk all need to work together to support ML and AI. System data must be sanitised and readily available on robust APIs, the models' insights need to be surfaced within the user's workflow and used to enable automated decisions where confidence is high. Crucially, the OMS on the desk must be open and flexible enough to cater for this shift in technology and the skillset of the new generation of front office teams. So whilst AI and ML may just become part of the furniture there's still a lot of work to be done on the house first.



Eugene O'Herlihy
Executive General Manager
- Trading and Market Data UK
Iress

PART ONE

Considerations and components in applying machine learning models into your trading processes

The finance industry has seen immense automated technology-led changes over the past few years and its pace shows no sign of slowing. Alongside this has been the increasing ability to micro-manage investment and portfolio strategies and to mitigate risk to produce higher returns on trading decisions.

With the augmented insights of machine learning (ML), this looks set to only get stronger.

Already the industry has a high digital maturity. And it has plenty of incentive and opportunity to further exploit artificial intelligence (AI) with its existing access to digital data, its desire to visualise patterns from historical events, and its workflows that are ripe for further automation.

AI is, of course, well embedded into the industry, right from the front office to the back office. Its use cases include automated trading and investment discovery, trading strategies, robo-advisors, voice-based commerce, customer behaviour analysis, customer service chatbots, identity verification and fraud detection – to name but a few.

ML though, is the next step. And its adoption is, as yet, at an earlier stage of refinement. ML is a specific type of AI – with subsets for supervised learning, unsupervised learning and reinforcement learning – that enables the building of algorithmic trading systems. These learn from data, without relying on rules-based systems.

ML not only identifies patterns and behaviours in historical data, but learns from it, with minimal human intervention. Its use case is clear. The fast changing market conditions that the world has witnessed with the pandemic have stressed that even further. The COVID-19 pandemic has pressed the need to build a trading environment that can adjust quickly to similar extreme events.

Awareness of the bright potential of ML was crystal clear from our survey. This involved Heads of Trading and similar from both buy-side and sell-side firms across Europe and the USA. Nearly half (48%) of our respondents said they were “at the early stages of exploring ML” for their organisation and 21% said they were “intending to explore the technology in 2021”.

Over a quarter (28%) said they “already had ML capabilities” on their desk.

ML’s potential to enhance traders’ ability to take advantage

of opportunities has not been fully met to date. Nor have all of its exciting capabilities to help firms and their quant traders handle their data more effectively via discovery of patterns, correlations and anomalies in large and complex data sets.

However, the majority (72%) of our respondents were aware of its potential to help them make faster trading decisions and win an advantage over the market average. They stated their key drivers for leveraging ML models were “to improve trade execution and to support pre-trade decisions” – via for example optimisation of order-routing and deal execution.

Establishing the technology, workflows, compliance, and analytics tools needed to action ML of data is a much tougher ask than finding the data in the first place. Implementing ML requires a scaling of data science expertise, either in-house or via outsourcing. Without data science capability, an organisation will be unable to free up human intellectual capital that can otherwise be dedicated to further analysis and research. Few firms, also, are likely to have the level of technical skills in data visualisation, ML and AI, and proficiency with Python and SQL.

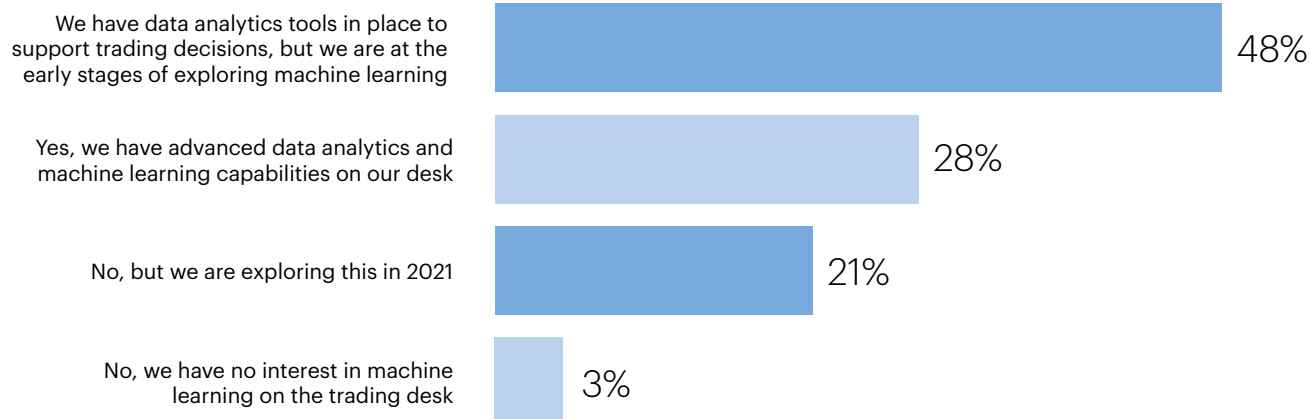
Therefore, it is not surprising that most of our respondents (66%) said they either had a dedicated data scientist embedded within their trading team or were working closely with a data science and software engineering team to effectively build and deploy AI and ML for their front office trading desk. Almost a quarter of respondents (23%) said they had “no one on staff specialising in data science” and 11% expected to rely upon “upskilling their traders in coding skills”.

As well as AI and ML, 30% of our respondents predicted that blockchain would be one of most influential technologies for shaping the near future of trading, given its power to accelerate and simplify the process of how transactions are recorded. In the future, the use of the blockchain ‘public ledger’ is likely to become part of the fabric of financial institutions’ technology and operational infrastructure. Used together, ML and blockchain have the potential to slice through layers of inefficiency.

From a practical point of view, distributed blockchain can provide reliable input for ML (which requires big data sets to make quality predictions). But their real strength is when they are employed in unison. Together, they have the power to speed up data exploration and analysis and improve transactions security exponentially.

48% of respondents said their organisation has data analytics tools in place to support their trading decisions, but are still at the early stages of exploring machine learning

Are you currently applying machine learning into your trading and execution processes?



"ML can evidently be a valuable asset for improving execution strategies and allows capital markets firms to adapt in real-time to unfolding trends. The challenge will always be building a scalable infrastructure for the algorithms to work most effectively and recruiting specialist talent to manage and interpret the models as well as integrating the plethora of third party data feeds."



Anya van den Berg,
VP of Data and Analytics EMEA,
Deutsche Börse

"The first area of clarity needed is the value proposition of bringing ML capabilities to the table. Have there been educational and ideation sessions with the leadership to properly comprehend, estimate, and articulate the potential value?"

If so, we could move to the next step of creating an executive mandate, end-to-end strategy, as well as execution framework. Our panel discussion at the event this year focuses on the four key pillars of structuring a ML capability that mitigates incremental risk while generating alpha."



Sharad Shandilya,
Former VP AI and Big Data,
Fidelity Investments

"We believe AI and ML will become increasingly critical to trading functions, as well as to functions that are only adjacent to trading in terms of their organisational structures. The introduction of 'explainable AI' and other tools is another factor having a major impact. AI is no longer the exclusive domain of data scientists and mathematicians; it is democratising rapidly and becoming part of the infrastructure for every enterprise."



Bruce Zulu,
Director of Technical Support,
Panopticon Streaming Analytics, Altair

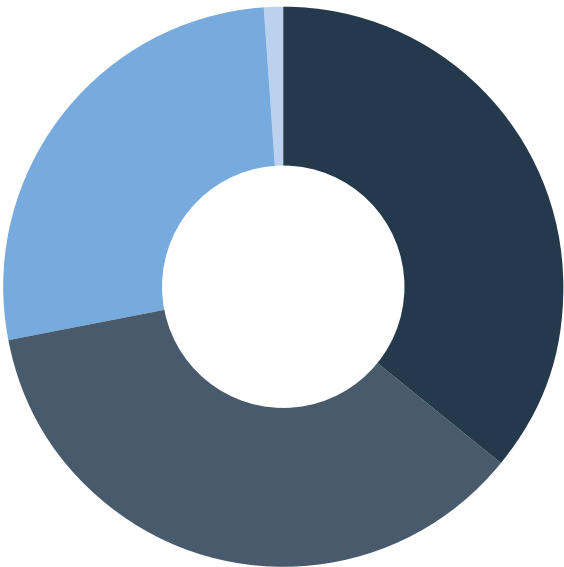
"What is clear from looking at this data is that the majority of firms realise the importance of deploying ML models on the dealing desk. There is still a long way to go, with over 70% of respondents at the exploration phase. COVID-19 has highlighted the need for further automation of trading processes and execution, so over the next two years we will see an increased level of investment and resources in data analytics and ML."



Anna Andrews,
Conference Director,
TradeTech Europe 2021

72% of respondents said their key drivers for leveraging machine learning models are to optimise trade execution and to support pre-trade decisions

What are your main drivers for leveraging machine learning models in trading and execution?



- To optimise trade execution **36%**
- To support pre-trade decisions **36%**
- To improve workflow efficiencies **27%**
- To free up traders' time to focus on complex, large orders **1%**

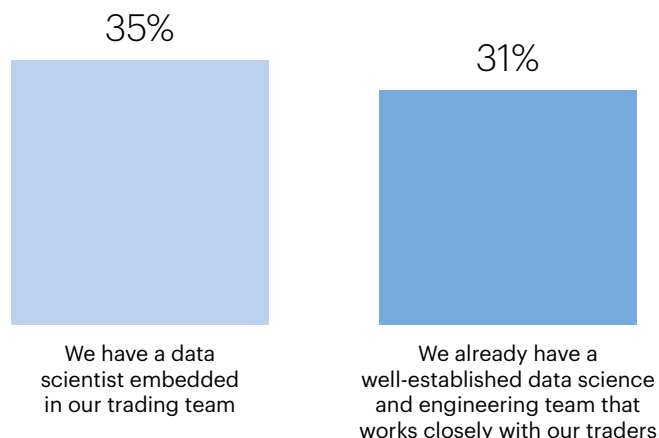
“Improving workflow efficiencies and achieving scale with traders’ time through ML need robust systematic feedback loops into the ML models with traders in-the-loop. Such loops have to be custom designed, integrated and traders have to be educated about these interactions with the ML teams and models.”

 **Sharad Shandilya,**
Former VP AI and Big Data,
Fidelity Investments

“A key driver to automate trading processes and execution is to free up trader time to focus on complex large orders that add value. So, I am surprised to see this score is so low. However, an important use-case for this technology is to better equip traders in pre-trade decision-making. I believe we will see an increased focus from buy-side firms and investment banks in the coming year on how to leverage data analytics and ML to optimise processes to ensure they achieve the best trade outcome for their clients.”

 **Anna Andrews,**
Conference Director,
TradeTech Europe 2021

The majority of our respondents have a data scientist embedded within their trading team to effectively build and deploy AI and ML for their front office trading desk



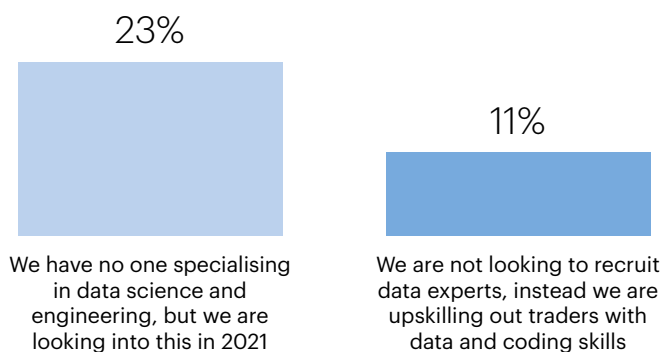
"Almost 90% of firms are looking to build specialised teams for data science and ML, which is the strategic, and perhaps recommended, approach to bringing ML to bear. However, having well-integrated data science and data engineering teams that also operate in lab-like or CoE-like data science environments is key to avoiding the common pitfalls of getting ML wrong.

Embedding one or a few hands-on data scientists in a more traditional team can make them work in an environment that operates with a different set of technical assumptions, infrastructure requirements, leadership knowledge gaps. It may fail to mitigate the risks created by junior data scientist's mistakes. It also fails to address the long-term requirements of AI, which help to build the capabilities that yield an exponential value curve over the longer term by addressing and building the foundations."



Sharad Shandilya,
Former VP AI and Big Data,
Fidelity Investments

In order to effectively build and deploy AI and ML in your front office trading, what is your main priority when it comes to talent and skills?



"With two thirds of firms already having data scientists embedded within the front office team, and half the remainder looking to achieve this, it's apparent that this is at the forefront of many trading firms' minds.

To this end, it's essential that with the core workflow, OMS provides access to its underlying data in an organised, timely fashion for ML processes. Simultaneously, it needs to also allow any automated actions, as a result of an AI model, to be implemented within the workflow. Core workflow systems cannot operate in a closed environment and survive on the desk."



Eugene O'Herlihy,
Executive General Manager - Trading and Market Data UK,
Iress

"Small- to mid-sized firms are under increasing cost pressure, and a lot of this cost will be linked to personnel. I would expect that it makes more sense for these firms to upskill their traders with more data knowledge to reduce the need for additional headcount.

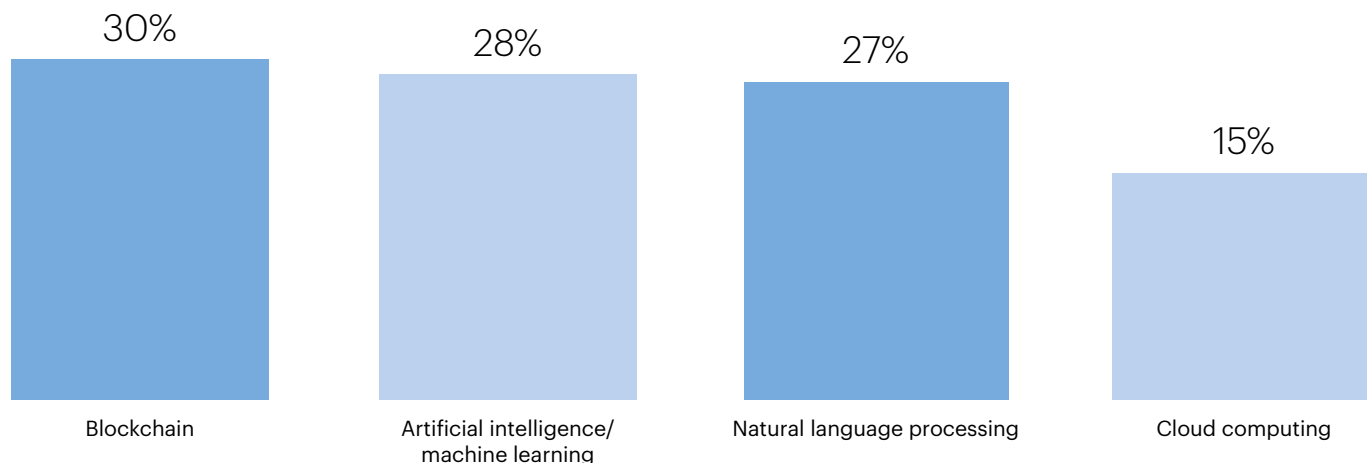
It is interesting to see a fairly even split between firms that have a separate data team versus data experts embedded within their trading teams. As data science and trading becomes more intrinsically linked, we may start to see a shift in the next 12-18 months with more firms bringing data and trading functions together, as opposed to sitting separately."



Anna Andrews,
Conference Director,
TradeTech Europe 2021

58% of our respondents said blockchain and AI/ML were the most influential technologies for shaping the future of trading

Which of the following technologies will be most influential in shaping the future of trading?



"Unsurprisingly blockchain is proving to be one of the most influential technologies for future trading. This is quick off the heels of the Coinbase IPO and the EIB digital bond issuance. Many are referring to this technology as the 'game-changer' that will redefine economies. While I agree with this statement and remain optimistic about its place in shaping future trading, it will undoubtedly take several years for adoption to gain momentum."



Anya van den Berg,
VP of Data and Analytics EMEA,
Deutsche Börse

"Natural language processing is a subset of AI/ML, both theoretically as well as practically, in 2021. A couple of decades ago, you could have argued that natural language processing had non-ML components, but that is no longer the case. Blockchain's value as an efficiency play has always been the most attractive part, at least for me, and I feel that this value is mostly yet to be realised. However, speculative digital currencies are a different subject."



Sharad Shandilya,
Former VP AI and Big Data,
Fidelity Investments

"The technologies all have the ability to exert a strong influence on the trading landscape, but will likely have that influence in different areas. Middle to back office and settlements will most definitely see blockchain as a potential game changer."

Front office trading, looking for new trading strategies, improved understanding of client interaction and opportunities for business growth will see AI and ML as key. Meanwhile, in the background, infrastructure needs to change to enable the growing data storage and processing needs with cloud-based tools."



Eugene O'Herlihy,
Executive General Manager - Trading and Market Data UK,
Iress

"Blockchain and its role in capital markets remains to be seen. But it is clear that the industry recognises the importance of this emerging technology in transforming the industry. It is interesting to see that the respondents, who are mainly in senior level trading roles, have scored this so highly as it is currently impacting post-trade and back office processes. We will have to wait and see what role it will play in front office trading."



Anna Andrews,
Conference Director,
TradeTech Europe 2021

PART TWO

The deployment of self-service analytics applications in electronic trading

Sell-side trading desks are using self-service analytics applications to scrutinise customer-trading patterns to improve relationship management and exploiting AI to confirm liquidity. On the buy-side, for asset and hedge fund managers, their data focus is primarily to seek out investment opportunities, more accurate pricing of illiquid assets, and the management of risk.

However, across the industry, self-service desktop applications, capable of creating actionable real-time overviews that incentivise evidence-based decision-making, are no longer a nice-to-have. Data-driven execution is already a business imperative for competitiveness.

One question remains: to what extent should employees be able to drill into and manipulate the data? Strong quants and traders will always look at the competition and the algorithms with a mind-set of maximising deep learning to find better trading possibilities. But what level of control should be imposed on the data ecosystem? Should traders, quants, risk managers and other business users be able to modify existing dashboards? To what extent should they be enabled, for example, to develop and back test their trading and portfolio management strategies?

The view of the majority (42%) of our respondents was that they should be able to modify existing dashboards but not to build new ones. A further 38% said they should be able to build and modify dashboards “without coding”. A minority (20%) said they should only be able to use “locked-down” systems. This difference in views is likely to be down to company culture and attitude towards the democratisation of data science to unleash innovation – and the levels of trust in traders to act intelligently on their data.

Looking ahead, data analysis will be an increasingly

important and time-consuming skill needed to work on a trading desk. This is likely to drive a rise in quants and traders who can code. With an increasing proportion of trades happening electronically, familiarity with Python and other coding languages is set to gain importance. From a purely practical stance, it is much more efficient when code can elevate your own trading model.

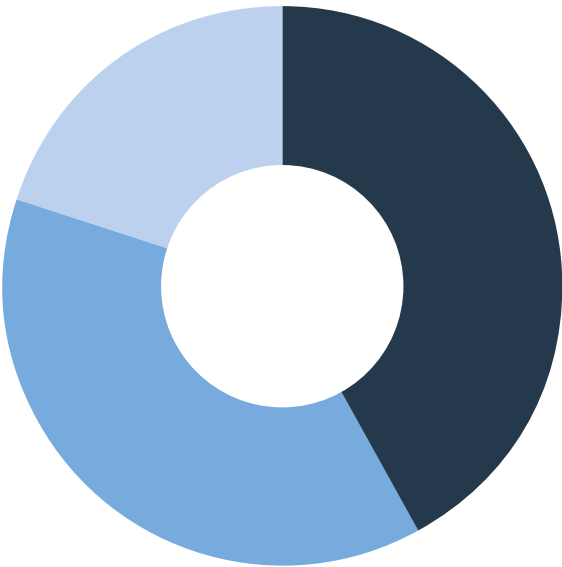
Looking at data in a pictorial or graphical format, enables traders to grasp difficult concepts with greater ease or to identify patterns that are otherwise unobservable. The ability to have a visual snapshot of where the market is heading, with an easy to understand UI/UX, is essential to successfully navigating liquidity and volatility for trading purposes.

The majority of our respondents said their top three primary use cases for trading analytics in their organisations were liquidity scanners (55%), hit ratio analysis (47%) and supply and demand through pricing and order book analysis (41%).

Our survey showed the future of market trading data is the cloud. This is a reality that will have been expedited by the pandemic’s demands for adaptive homeworking. 59% of our respondents said their current mode of deployment was in secure-server containers such as Dockers. 57%, however, said this would change in the next two years to private cloud only and 41% anticipated a hybrid solution of cloud and on-premises data infrastructure.

The cloud brings two undeniable advantages. It reduces the cost of on-premises servers and storage and it offers a flexible data delivery environment. But shifting to it has ramifications, not least the juggling of security, data protection and commercial confidentiality.

42% of our respondents said traders, quants, risk managers and other business users should be able to modify existing dashboards but not to build new ones



How do you think your traders, quants, risk managers, and other business users should be able to build or modify their own data/trading analytics dashboards?

- They should be able to modify existing dashboards but not build new ones 42%
- They should be able to build and modify dashboards with no coding required 38%
- They should only be able to use 'locked down' systems that they cannot modify in any way 20%

“Closed systems are gradually being phased out on the desk. A controlled open environment is key where the desk can create, modify and deploy their dashboards as required without the need for new product releases. Strict controls are required though as firms will have different skill levels, but being closed is not an option.”

 **Eugene O’Herlihy,**
Executive General Manager - Trading and Market Data UK,
Iress

“Self-service analytics is becoming a ‘must-have’ in every industry where Altair is active, from high performance computing to advanced manufacturing to electronic trading. It’s critical to give that capability to the people who understand the challenges they are faced with, how the data is being originated, and what the right questions are. Business users must be able to act right away when they need new perspectives on their data, based on fast-moving events.”

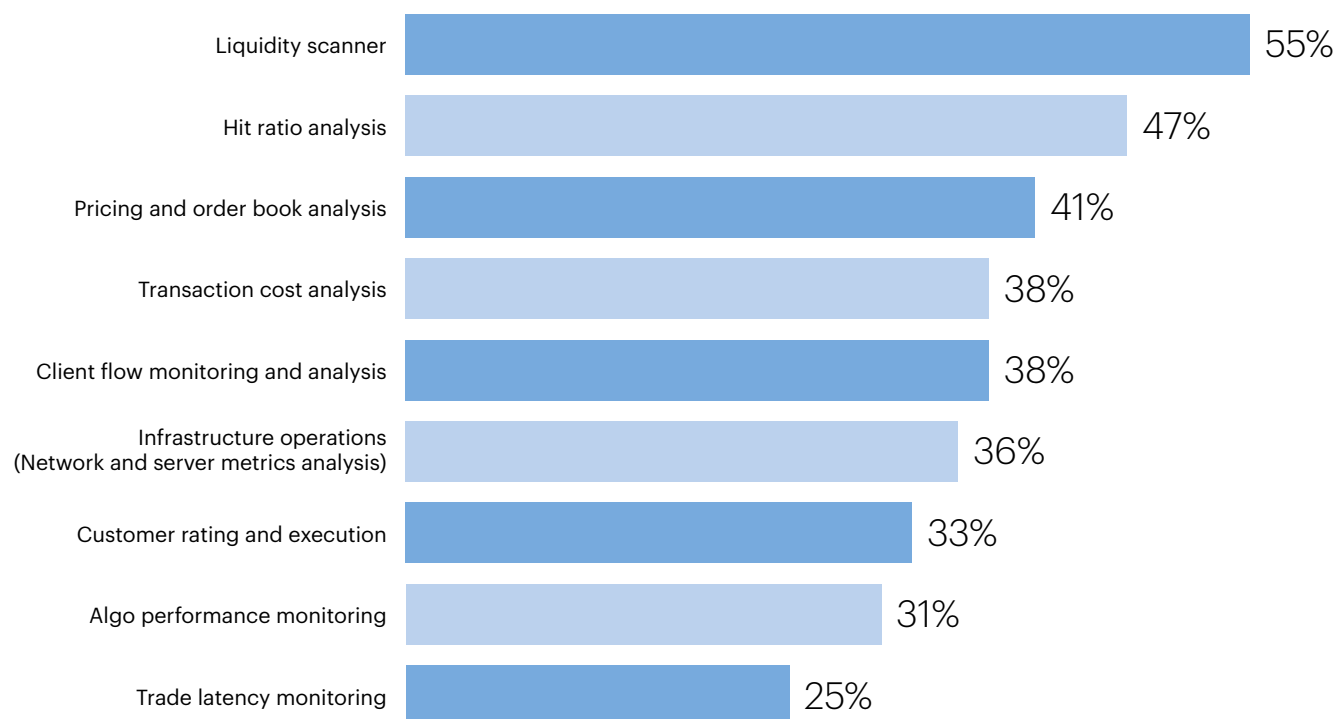
 **Mahalingam Srikanth,**
CTO,
Altair

“Part of a risk-mitigated truly end-to-end data science governance framework needs to address the cross functional training needs across multiple teams that are involved in development, deployment, management, measurement of ML systems. This enables the teams to communicate and work with each other effectively. However, the depth of understanding of limitations, assumptions, and troubleshooting of ML lies with the data science teams and their appropriate depth of expertise. This informs how best to communicate insights and augment decisions. The dashboard can also be effective points of communication between these teams.”

 **Sharad Shandilya,**
Former VP AI and Big Data,
Fidelity Investments

The majority of our respondents said their top three primary use cases for trading analytics in their organisations were liquidity scanners, hit ratio analysis and pricing and order book analysis

What are the primary use cases for trading analytics in your firm?
(Please select all that apply)



"It's not surprising to see this spread of analytics used across the board within firms. There may be a skew towards seeking liquidity and pricing followed by client analysis and operations, but analytics are essential at all points in the trading value chain. Without those, parts of the business are flying blind and liable to become blockers to business in the long run."



Eugene O'Herlihy,
Executive General Manager - Trading and Market Data UK,
Iress

"Client flow analytics that allow for sentiment analysis by specific market participant types have gained popularity in 2021, with Deutsche Börse expanding its own flows offering to cover instruments from Eurex, Xetra and 360T. Unsurprisingly due to the global pandemic and the increasing challenge to source liquidity, analytics that centre on this are also on the rise, as they are valuable for trading, research and risk management."



Anya van den Berg,
VP of Data and Analytics EMEA,
Deutsche Börse

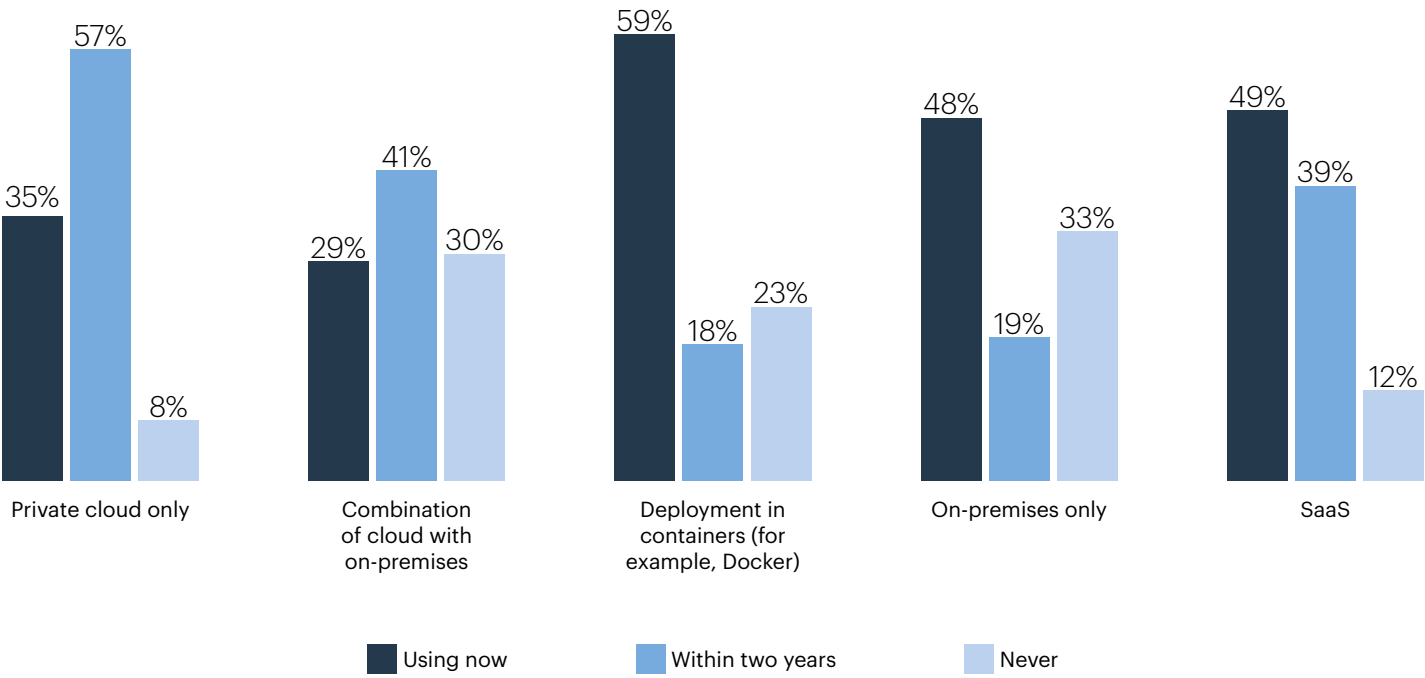
"It's a bit surprising that trading latency came in with the lowest score for this question. In our experience, this is an area where nearly every trading organisation can use analytics to improve profitability. For example, by implementing stream processing applications like Corvil or similar tools combined with real-time data visualisation, firms can achieve a more accurate view of client, inbound, and venue latency impacting orders or venue SLA breaches. More and more of our banking clients, especially on the sell-side, are looking at latency as a major point of leverage for their data analytics investments."



Bruce Zulu,
Director of Technical Support,
Panopticon Streaming Analytics, Altair

59% of our respondents said their current mode of deployment was in containers such as Docker but they said this would change in the next two years to private cloud only

What mode of deployment are you using now or considering for use within the next two years for your trading analytics services?



"Iress clients are looking to deploy proprietary analytics in a number of ways. Given the diverse nature of the requirement, we are ensuring the platform remains open so that these analytics can be integrated within the system for easy access alongside the available standard metrics."

 **Eugene O'Herlihy,**
Executive General Manager - Trading and Market Data UK,
Iress

"The malleability of cloud, along with the AI leadership displayed by the likes of GCP and Azure are likely reasons."

 **Sharad Shandilya,**
Former VP AI and Big Data,
Fidelity Investments

"Our clients are primarily global banks with extensive trading operations, and all of them are actively seeking ways to use cloud technology to reduce costs and improve the reliability of their trading analytics infrastructures. However, most other industries do not have to handle the same levels of data volume and velocity that we see in electronic trading. The cloud is wonderful for some things, but our customers are telling us that the ability to utilise a hybrid approach is extremely valuable."

 **Mahalingam Srikanth,**
CTO,
Altair

PART THREE

The challenges and trends in leveraging data analytics in trading

It may have been the global financial crisis of 2008 that highlighted the issue of liquidity risk. It was this that drove the introduction of regulatory reforms, not least the EU's MiFID II, the Basel Committee on Banking Supervision's Fundamental Review of the Trading Book (FRTB) and the transition away from IBOR. But the pandemic has now once again pushed liquidity to the fore.

An undeniable driver of financial markets is liquidity. Assessing it unfailingly tops the list of daily trading issues. A liquid market usually signals strength of trading volume and overall market conditions, boosting confidence in investors and traders via high supply and demand for an asset and low trade risk. Therefore, having increased visibility into market liquidity is not only fundamental to understanding where and when to make trades, but to improving algorithms and making better decisions on manual orders.

However, sourcing liquidity requires ongoing qualitative and quantitative assessment. It also demands the accumulation of data with enough granularity and depth. Unsurprisingly, the majority (32%) of our respondents listed "navigating liquidity and complying with the complexities of regulation" as their top challenge today. Hand in hand with this and the importance of managing liquidity risk in times of stress, 27% described their top challenge as "predicting how the pandemic will impact my trading desk".

The key advantage of AI and ML – and where it offers the greatest returns – is its capacity to digest and analyse huge volumes of data more efficiently and accurately than a human. Its applications include high-frequency trading, order execution, trade pricing, and portfolio management, credit scoring models, sentiment analysis and recommendations. Alongside traditional data sets, alternative data sets are now also being tapped to provide

perspectives on consumer sentiment - for example, how the weather can impact on specific sectors.

The ability to achieve peak performance is linked to the depth, breadth and quality of data used. But the 'junk in, junk out' rule applies strongly to ML. Having data that is standardised, validated and accessible is a pre-requisite to obtaining meaningful results from sophisticated models.

The market events of 2020 are accelerating the need for firms to create more agile and robust approaches to their data analysis. Many are using a variety of data sets to manipulate for analytics and for AI and ML. They want to work with data sets that are compatible, that can be normalised easily, that can be safely used together and that won't create errors. Anything else will suck the oxygen out of their innovation projects.

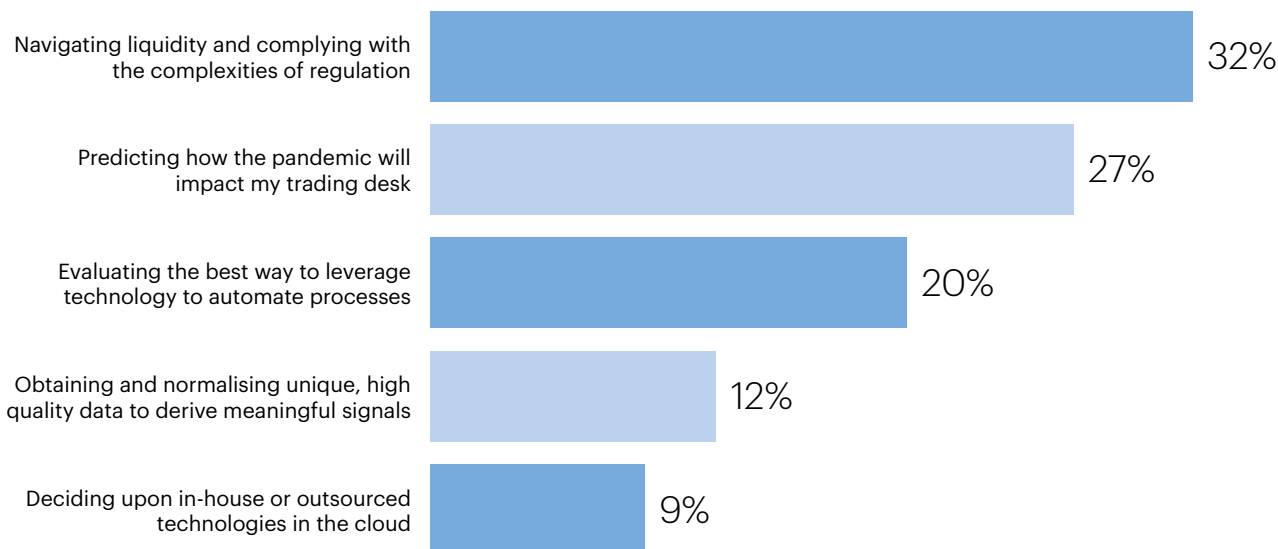
Our survey showed a clear split in how our respondents were tackling their data needs.

41% said that their organisations' approach to their analytics strategy was to receive pre-packaged data sets from their providers and partners. However, 40% said they received raw data from their own providers and partners to integrate it with their own proprietary tools in-house. 19% had a mixture of both. Today, firms are seeking high-quality data solutions that are able to provide the right delivery mechanism for their needs – whether that's via Graphical User Interface, API or the cloud.

We asked our respondents if they were to source externally developed data analytics tools, what they would look for in a provider. The majority (29%) said they would look for "pure technology considerations such as functionality and performance". A further 26% prioritised the provider's "flexibility and amenability", and 20% wanted "cloud-based tools".

32% of respondents said the top challenge they are facing today is navigating liquidity and complying with the complexities of regulation

What are the top challenges you are facing today?



"A fragmented marketplace and increased regulatory oversight remain the top challenges today. In order to predict how the pandemic and other future events will impact the trading desk, firms need to remain agile and adaptable to new technologies such as ML, cloud technology and blockchain. However the overriding message continues to be the recruitment and retention of data science talent to ensure existing models can be appropriately managed and future algos can be developed to stay ahead of the curve to generate advanced signals."



Anya van den Berg,
VP of Data and Analytics EMEA,
Deutsche Börse

"Looking at this graph, it stands to reason that the biggest challenge most firms will be facing in 2021 is how to navigate the new European market structure post-Brexit, and the shift we will see in liquidity volumes as a result. We are already seeing a divergence in EU-UK financial regulation, so firms will need to grapple with this new challenge."

Heads of desk are facing numerous hurdles, going back to the office and the future of the hybrid trading desk, as well as navigating the post-Brexit transition and its impact on the dealing desk. Particularly if they have entities in Europe with order flow in both Europe and the UK."



Anna Andrews,
Conference Director,
TradeTech Europe 2021

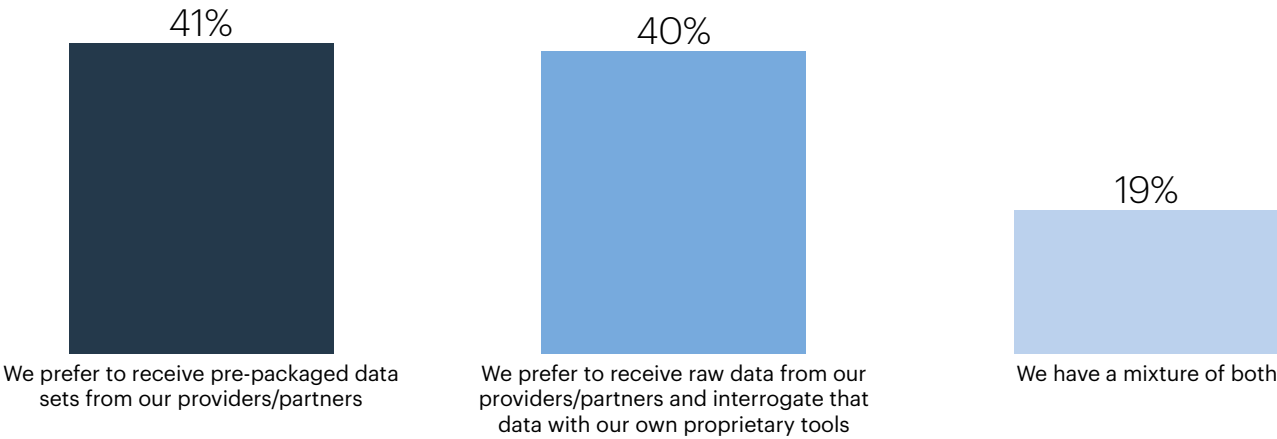
"Evaluating AI/ML driven technologies with all their nuances and mushrooming startups defining ideal build-buy combinations, and iteratively developing and deploying such technologies that interplay with operations can be challenging. This is where point solutions and tactical wins can overpromise and under-deliver on robust solutions that can keep evolving and delivering value over the long-term. A focus on in-depth agile frameworks that include ideation, design, dev, deploy, testing, training, and ops is needed."



Sharad Shandilya,
Former VP AI and Big Data,
Fidelity Investments

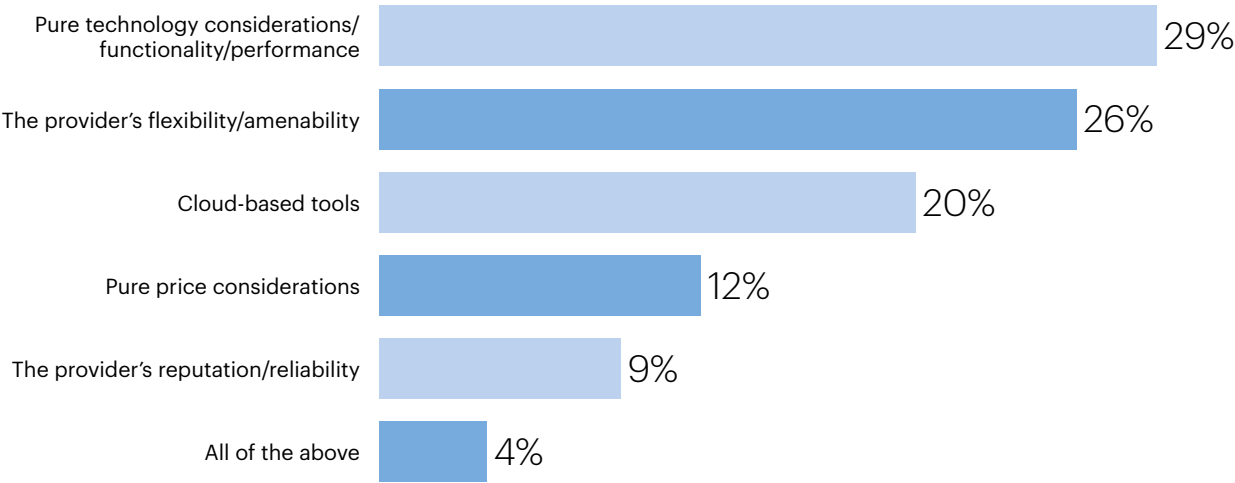
81% of our respondents said that their organisations approach to their analytics strategy was either to receive pre-packaged data sets from their providers/partners or to receive raw data from their own providers/partners and to integrate it with their own proprietary tools in-house

Which statement best reflects your firm’s approach to its analytics strategy?



The majority of our respondents said they would look for pure technology from a provider when sourcing externally developed data analytics tools

If you were to source externally developed data analytics tools, what would you look for in a provider?



CONCLUSION

As trading desks work more with bigger data sets, cloud-based analytics, and AI- and ML-focused solutions, the agility with which trading desks can act on new information is becoming more urgent. AI and ML is allowing millions of data points to be analysed, trades to be executed at optimal prices, markets and asset prices to be accurately forecasted and risks to be mitigated to produce higher returns.

Those firms that can ingest and normalise data sets the fastest will be the ones that will have the competitive edge in future. Today, data is where the alpha is. This means that buy-side and sell-side firms are changing their relationship with data, refining the tools they use to analyse that data, and reassessing the technology that delivers or supplies it.

Alongside these trends is a clear understanding of the importance of getting digital data transformation right for trading teams. There is a lot to focus on this for management boards and C-suites. But it falls into four areas: building and back testing trading strategies; executing trades and performing execution analysis; complying with the ever-growing volume of regulations; and innovating via AI and ML.

Future success for both the buy-side and sell-side will mean managing data and workflows in such a way that they can deliver enhanced efficiency, agility and alpha. And the time to do that is now. Blink and firms may well discover that their competition has moved faster and built up advantages they will struggle to match.



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