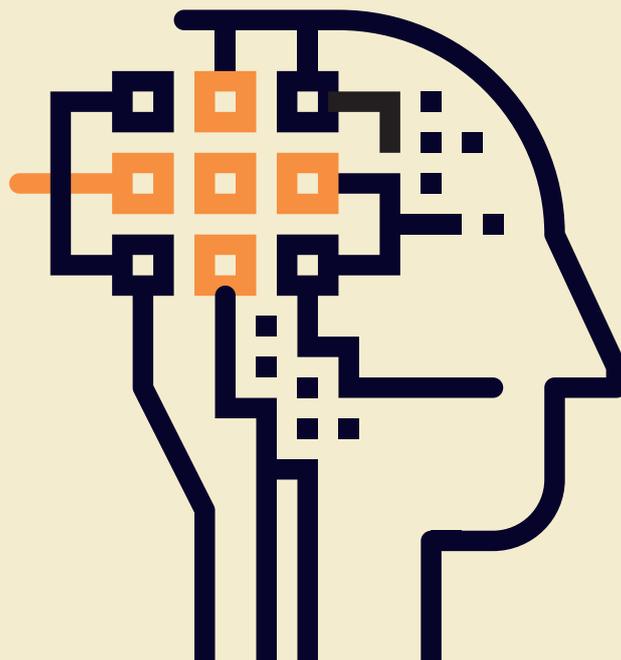


HOW AI IS SHAKING UP INVESTING, TRADING AND FINTECH

Peter Blasko
Director of Software



Artificial intelligence (AI) technology such as internet, electricity, internal combustion and steam power before it, is spurring a transformation in the global economy, with its impacts on investment strategy and automated trading technology just beginning to be felt.

The pressure for asset managers to outperform the market consistently has always been a constant, but against a backdrop of financial market uncertainty and more stringent regulation, it is getting harder and harder to do.



AI IS NOW ESSENTIAL TO INVESTMENT DECISIONS

With this in mind, the buy-side has turned to AI to improve investment decision making. Already investment firms, particularly hedge funds, are amassing huge amounts of so-called 'alternative data' to help them make better investment decisions and improve asset allocation.

Funds are then using AI to make sense of, and find patterns in, this unprecedented volume of information. In fact, due to the amount and types of data available some are completely changing their model and adopting a 'Big Data' investment framework.

Where previously a quantitative investor would have been limited to analysing traditional data sets like regulatory filings, financial statements, trading economics and global macro data. There is now the opportunity to harness a much broader range of market-relevant information in real time with the use of sophisticated AI tools, such as machine learning to analyse that large quantity of data efficiently and effectively.

New data sets include online purchases, geolocation data and information created by social media users, to name a few. The analysis of oil inventories at refineries to predict future pricing, or satellite crop monitoring to extract valuable information about the health of crops, help innovative hedge funds forecast yields and enhance their returns.

They are then using AI to make sense of, and find patterns in, this unprecedented volume of information. In fact, due to the amount and types of data available some are completely changing their model and adopting a 'Big Data' investment framework.



TRADERS ON THE AI JOURNEY

While AI has made significant inroads into changing the way investment decisions are made. For those in the trading community the journey, and, the potential for transformation has only just begun.

As is the case in investment decision making there are huge amounts of data, including real-time market data and a firm's own execution prices, that can be analysed using AI to improve trading processes. For early adopters, there is now a chance to gain competitive advantage, whilst simultaneously meeting a range of much more stringent regulatory standards.

The introduction of MiFID II has indeed been a catalyst for greater take up of AI in the trading process, with Article 27 forcing firms to demonstrate they have taken "all sufficient steps" to achieve best execution. This has significantly raised the bar for funds compared to the less-stringent MiFID I regime.

For early adopters, there is now a chance to gain competitive advantage, whilst simultaneously meeting a range of much more stringent regulatory standards.



REGULATION A CATALYST FOR CHANGE

Traders now need to focus on where they can add the most value and require automated systems they can trust. In 2018 TORA launched a quantitative execution strategy optimizer called AlgoWheel which uses AI to help the buy side achieve best execution. Execution for low-touch orders is often automated, and, for those orders needing human intervention, real-time market intelligence is now provided by the AI-driven AlgoWheel.

The AI accommodates traders need to move beyond traditional Transaction Cost Analysis (TCA) to accurately estimate price slippage for trades before they enter the market. TORA's pre-trade TCA solution uses a machine learning powered algorithm to evaluate each order, and uses its analysis in conjunction with the AlgoWheel.

The AlgoWheel examines the core attributes of an order such as; spread, volatility, volume and liquidity consumption. The tool uses a library of historical and global data, and then estimates the market impact of using any algorithm or broker combination to help traders choose the best place to send their orders.

In 2018 TORA launched a quantitative execution strategy optimizer called AlgoWheel which uses AI to help the buy side achieve best execution. Execution for low-touch orders is automated, and, for those orders needing human intervention, real-time market intelligence is now provided by the AI-driven AlgoWheel.



THE POWER OF THE CLOUD

Both of these technologies connect into TORA's order and execution management system (OEMS), which is a cloud-based solution that allows for the increasingly massive amounts of storage space and computing power that big data requires. We believe the future of AI to spur the creation of new, powerful trading technology (relies on a system) that has the potential to tap this capacity.

As part of this, traders should expect to have access to systems where applications can be scaled up or down as needed. This process is known as "elastic scaling" and can be leveraged with the click of a mouse when trading on a cloud-computing based platform.

AI WILL BE EVERYWHERE

The future possibilities of AI in the world of alternative data and investment strategy are virtually limitless. For instance, the use of natural language processing, which relies on machine learning to analyse and understand news feeds and social media platforms like Twitter is now commonplace. The ability to predict where this sentiment around companies is headed, and then to derive actionable investment advice from it is only a next logical step for this technology.

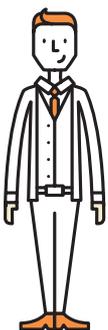
AI is also now critical to the operations of banks, insurers and wealth managers, with many large businesses and their service providers readying to move from pilot phase to deployment of projects.

Within TORA's own business we are using an array of scalable AI technologies to improve efficiency for our internal operations.

There are a multitude of benefits for account management, automated quality assurance and client service. We also use Big Data to manage our internal development and product management processes, as well as deploy chat-bots for various human-computer interaction tasks.

We believe the transformative power of AI will be profound and will become as universal as the internet is now. While the use of technologies like machine learning in trading is still in its infancy, there is still much to be gained for asset managers employing an AI strategy, and, using AI-driven platforms now to gain a first mover advantage.

AI is now critical to the operations of banks, insurers and wealth managers. With many large businesses and their service providers readying to move from pilot phase to deployment.



TORA provides everything a firm needs to run a fund: portfolio, risk, order and execution management systems, and compliance and analytics engines - all available individually, or as one integrated and unified platform. As a proud independent vendor we look forward to delivering against our product and service commitments for 2019 and beyond.

TORA.COM



Robert Dykes
Chief Executive
Officer



Gerritt Van Wingerden
Managing
Director



Chris Jenkins
Managing
Director

For more information,
contact us at info@tora.com