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# Taking trading to the next level

Innovation in electronic trading has enhanced liquidity and allowed the market to perform more efficiently. What can electronic trading firms do to unlock further progress?

**E**lectronic trading has undergone a dramatic shift over the last 10 years, with the industry transitioning away from manual tasks to more automated processes, and this appears certain to continue. Over the next three years, we hypothesize that artificial intelligence (AI) and machine learning enhancements will be the most influential technologies in shaping market trading.

Machine learning and AI have been around for more than a decade, so while this technology may seem advanced, it is already dated in its basic form. Leading firms are investigating how they can incorporate more powerful types of machine learning and AI into next-generation electronic trading algorithms. These algorithms combine greater scalability and superior performance to help accomplish client objectives, which are unique to every firm.

Trading technology innovation, including access to new tools, has furnished market participants with enhanced liquidity and allowed the market to perform more efficiently and fairly. Perhaps the biggest barrier preventing electronic trading from reaching the next level of performance is the need to design new algorithms.

Hopefully, the industry can take inspiration from outside the sector. The sophistication of algorithms in electronic trading lags the platforms we use in

our everyday lives. Algorithms are all around us and we are constantly interacting with them when we are online. For example, platforms such as Google and Spotify use predictive algorithms to provide results tailored to users based on their behaviour patterns.

One electronic trading platform that is seeking to overcome the constraints of conventional electronic trading and break free to the next level of performance is JonesTrading's JET platform.

JET is not fundamentally different in terms of meeting the objectives end users are trying to accomplish. It still utilises an algorithm that breaks up trades to navigate a complex and fragmented market. However, the platform redefines electronic trading by using a hybrid ecosystem where human intellectual capital and electronic capabilities merge for optimal trading outcomes.

JonesTrading helps clients meet their trading objectives through an algorithm particularised for scenarios and providing data-driven recommendations to support decision making as it relates to trading.

The platform uses deep reinforcement learning, which applies computational agent learning to a trial-and-error process that improves decision making over time. This helps to solve a subset of unique problems by collaborating with clients and their portfolios to achieve their objectives.

It is key for electronic trading platforms to focus on the tools that they employ.

Machine learning and AI are terms that are broadly discussed, but applications come in many different forms. These models include both supervised and unsupervised learning. But opting for one of the more complex machine learning options is not always the right choice; the more appropriate question focuses on the quality of the user experience.

JonesTrading is helping solve myriad client trading objectives by employing sophisticated AI techniques that drive the process of differentiation.

But this is all just the beginning. Where the platform goes from here will provide its unique contribution. JonesTrading believes that its true value will be actualised in a more elegant and sophisticated model that continues to incorporate next generation machine learning models and recognises the individual user and their trading objectives akin to a big technology company algorithm that connects at a more sub-conscious level. As JonesTrading continues to improve its financial engineering processes, how long will be it be before clients have access to one meta strategy that learns based on what the portfolio is trying to achieve.

*If you have a unique trading objective that is complicated to solve, contact JonesTrading where the JET platform will provide you with a service that is particularised to suit your individual portfolio, your trade and your algorithm.*