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Artificial Intelligence + market surveillance = market integrity

Artificial Intelligence is the defining technology of the 21st century that will upend industries, institutions and long-time incumbents. Modern artificial intelligence enables new, hyper-scalable capabilities which make otherwise bespoke or scarce solutions ubiquitous and accessible.

Machine intelligence is gaining deeper penetration at exchanges and clearing houses - we are using it to increase operational efficiency, create richer data products and provide better services to the market. Nasdaq reimagines capabilities such as alternative data research, trade surveillance, asset flow predictions, and investor relations and applies them to financial markets for institutional and retail investors.

Nasdaq was the first market to implement machine learning for market surveillance on the markets we operate in Europe and in the US, as well as providing such services to our technology clients. Nasdaq's European Surveillance team was the first surveillance team in the world that implemented machine learning into its surveillance technology and starting to use that in live production almost three years ago. When we are now also starting to use similar technology for our US market that will be helpful given that the Nasdaq's U.S. market surveillance team annually reviews 750,000+ alerts that flag unusual price movements, trading errors and potential manipulation.

The implementation for our European markets is benefiting from machine learning to create a ranking score attached to new alerts from the surveillance system. In particular, it enable prioritization among incoming alerts in situations where work load is high, e.g. around opening of markets, it complements existing quality controls in relation to alert handling and it enables managers to identify outliers. This use of artificial intelligence enhances the market surveillance functionality and transfer learning to improve detection of malicious activity. Machine learning provides better opportunities for surveillance specialists to focus on the right cases, ensuring market integrity is upheld at its highest level.

Nasdaq sees benefits for this technology for exchanges and regulators worldwide, not least in the European markets where trading is fragmented. We also believe it will be useful in sectors which are outside the traditional financial markets, such as cryptoassets and also in the gaming industry. Among others, it can help monitor bets and for instance detect possible money laundering cases.

Nasdaq continues within its Innovation Lab to research and build unique products that combine our proprietary and third-party data with machine intelligence capabilities. This allows us to work hand in hand with market participants to jointly build products that support investors' ability to build and protect assets today, and in the future.

Given the huge opportunities ahead, already under exploration or still to be detected, Nasdaq would urge policymakers to maintain the approach of not stifling but supporting innovation. As traditional business models are challenged and where regulatory intervention is considered, we also fully support the principle of 'same business, same rule', which has so far been guiding the regulatory development. ●