

# The impact of AI on the crypto industry - can neural networks be useful in trading?

*The world of cryptocurrencies has witnessed significant growth and attention over the past decade, captivating the interest of investors, traders, and tech enthusiasts alike. Simultaneously, AI has emerged as a powerful tool in various industries, revolutionising processes and decision-making.*

Temps de lecture : minute

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In this article, Kevin Plumpton, a leader in the Anti-Money Laundering and Counter Financing Terrorism field, the Pioneer of KYCMATIC, and the CEO of the global financial crypto-fiat ecosystem Kyrrex covers the impact of AI on the crypto industry and examines the potential of neural networks in cryptocurrency trading.

The rise of cryptocurrency is a fascinating phenomenon of our day. Digital currencies remain a very attractive investment tool, with the potential to generate enormous profits on cryptocurrency exchanges or when investing in these assets over the long term. Despite their rising popularity, investing in cryptocurrencies is not without its challenges, one of which is the complexity of the technology involved. Significant financial institutions, including hedge funds, banks, pension funds, and family offices, join the cryptocurrency market daily. Typically, these companies use trading models that are significantly more intricate than those utilised by individual investors. The use of AI is no longer limited to corporations. Crypto assets investment requires a high level of knowledge and diligence. As more data-driven resources become accessible, investors

and traders increasingly turn to AI and machine learning to make sense of the markets. These advancements have led to the development of sophisticated trading bots and predictive models that have the potential to provide traders with a competitive edge.

## Data analysis and pattern recognition

Cryptocurrency markets operate around o'clock and generate an enormous amount of data, making it challenging for traders to stay updated on trends and make informed decisions. AI-driven neural networks excel in processing and analysing large datasets, enabling traders to identify patterns and correlations that may not be apparent to the human eye. By recognising historical price patterns and market trends, these networks can help predict potential price movements and make more strategic trading choices. AI-powered sentiment analysis tools can scour social media platforms, news articles, and forums to gauge public perception and emotions surrounding specific cryptocurrencies. By getting a better prospect on market sentiment, traders can make better-informed decisions about their trades.

The cryptocurrency market can be analysed with the use of common types of sentiment analysis, such as:

- In a polarity study, the statements are looked at and labeled based on whether they are reasonable, harmful, or neutral. Analysts and investors will set the trend for similar information and labels to be looked at in the same way once the overall score has been taken into account.
- Aspect-based sentiment analysis. Aspect-based view analysis puts data into groups based on the business or service and figures out how people feel. One way to do this is to look into customer feedback by placing a feeling with a result or service.
- Tone and emotion. NLP can determine how a text makes you feel or

what it sounds like. We can learn more by looking at the different kinds of feelings that come up.

Neural networks have also found extensive application in algorithmic trading strategies. Traders can develop complex trading algorithms that execute buy or sell orders based on predefined conditions. AI-driven trading bots can efficiently manage multiple trading pairs simultaneously and respond to market fluctuations in real time, ensuring faster and more precise executions.

## The role of neural networks in trading

Neural networks excel in predictive analysis due to their ability to identify patterns in vast amounts of historical data. By training a neural network on historical cryptocurrency price data, it can learn to recognise patterns associated with different market conditions and predict potential price movements. These predictions can help traders anticipate trends and adjust their strategies accordingly.

One of the problems traders face is that there is not a lot of money on the cryptocurrency market. Due to their high volatility, digital currencies are not suitable for business payments. Sometimes, the difference between supply and demand is made up for by the high fees exchanges and banks charge. To solve the problem, machine-learning platforms are being used. Side-matching technology is used to help customers find the right broker and bank, and this lets them work directly with the broker and bank and pay the least amount of fees. Besides, this fast-paced industry assumes effective risk management. Neural networks can aid traders in optimising their risk management strategies by analysing past data to identify patterns associated with potential losses.

These days, cryptocurrency markets are also renowned for their volatility, which can pose challenges for traders seeking to make profitable trades.

Neural networks can process and respond to market data swiftly, enabling traders to capitalise on short-term opportunities and adapt to rapidly changing market conditions.

Other than that, AI systems can watch and compare changes in the exchange rate and find patterns. They can then use this information to make accurate predictions about how the exchange rate will change in the future.

## Challenges and limitations

While the use of neural networks in cryptocurrency trading offers numerous advantages, it also comes with some challenges and limitations: Here are some of them: it starts from overfitting. Quite often AI memorises historical data instead of identifying general patterns, which in its turn, leads to poor performance in live trading environments.

Another issue is the general lack of regulation. The industry is relatively unregulated in many regions, that's why AI trading bots raise concerns about market manipulations. Of course, that leads to another issue — in uncertain market conditions AI algorithms may be impacted by major news events or regulatory changes.

To conclude, we can say that AI has clearly brought drastic changes to the crypto industry by enhancing data analysis, predictive modeling, and algorithmic trading strategies. As technology advances and AI algorithms become more sophisticated, the role of neural networks in cryptocurrency trading is likely to expand. However, it is essential to recognise that AI-driven trading also carries risks and challenges that need to be carefully managed. As with any trading approach, AI-based strategies should be complemented by comprehensive risk management, ongoing monitoring, and human oversight. Ultimately, while neural networks offer valuable insights and opportunities in the crypto industry, human expertise remains indispensable in interpreting results, evaluating risks, and

making prudent trading decisions.

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