

INSIDE DIGITAL ASSETS

with RIC EDELMAN

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THE CONVERGENCE OF INNOVATION

How blockchain technology unlocks the wealth-generating potential of Artificial Intelligence, robotics and the Internet of Things through digital assets

By Jake Ryan, author of *Crypto Investing in the Age of Autonomy*

What if, instead of allowing Google to make money by selling your personal data, you could monetize your own data stream? Or imagine having an investment bot that scoured the internet 24/7 to find the best interest rates for your savings account?

Sounds far-fetched, but it's already possible today, thanks to the convergence of Artificial Intelligence, the Internet of Things, robotics, and blockchain technology (aka crypto and digital assets).

I come from a tech background – I was a software developer and then specialized in AI before beginning my professional crypto investing career – so I have a techie's perspective on blockchain technology. I strongly believe that it's much more than Bitcoin; it's the basis for an entirely new kind of economic infrastructure. Indeed, blockchain technology will unleash unprecedented economic power as it converges with AI, IoT, and robotics. *Smart investors will focus on the businesses that understand this potential.*

From Automation to Autonomy

Have you heard the phrase, "Software is eating the world"? Software has been transforming how we do business for decades. Now, software that incorporates AI is taking automation even further. Businesses use AI to improve systems ranging from health care records to navigation. They use robots to perform rote physical tasks. IoT sensors are embedded in everything from refrigerators to warehouse pallets.

Automation is mind boggling on its own. But there's another leap to make: from *automation* to *autonomy*. By linking AI, IoT, and robotics to blockchain technology, you can create *fully autonomous systems*. That's right: systems that can govern, manage, and run themselves year-round, all day every day. Blockchains make it possible to process, store, and transfer economic value without human intervention. I call this technological revolution the *Age of Autonomy*.

I predict that in the not-too-distant future, every industry, community, and government will use autonomous systems to produce work, and to generate, transfer and store value. These systems will combine AI and IoT sensors with blockchains.

Robots can perform tasks autonomously. IoT sensors measure, generate, and communicate massive amounts of data. AI provides judgment, expertise, and evaluation to transform that data into knowledge. And digital assets managed on blockchains will allow organizations to govern and enforce the transfer and storage of value from the work produced, with the ability to turn that knowledge into economic action, *autonomously*.

Crucial Connector: The Smart (or Autonomous) Contract

Smart contracts are key to autonomous operations. Based on self-executing code and validated by the blockchain, they can securely move value from one user to another without human intervention. In other words, you program a smart contract with specific parameters and then let it work for you. For example, if you are interested in earning interest on your bitcoin, you could program a smart contract to search the web for the best interest rate and then directly send bitcoin to that service – all while you sleep.

Convergence: Blockchain and AI

Blockchains are intersecting with AI in several key areas. Today, many of the trades that happen on crypto and stock exchanges are run by trading algorithms (bots). These are AI software applications that decide when and how to trade stocks, commodities, and digital assets. Soon, trading will become a subroutine inside a bigger process.

Imagine a farm that uses software to autonomously runs its operations – from buying seeds to irrigating crops. Blockchains coupled with AI will allow the entire management of operations to become an entire autonomous system. When that happens, it will become common for trading bots to handle the buying and selling. That trend will gain momentum as assets become digital, and more of them are managed autonomously. There will even be marketplaces that buy and sell bots, and autonomous systems will buy and upgrade their own bots!

Convergence: Blockchain and IoT

Blockchains are also intersecting with IoT sensors. Let's return to the idea of owning, controlling and monetizing your personal data. Start with the data you generate at home – the sensors in your fridge, for example. Perhaps your eating habits are worth money to some company. For the right price, perhaps you're willing to sell your data if it's properly anonymized.

Or think about that autonomous farm. It will have sensors that measure how much seed was planted, how much water was used, and how much crop yield occurred. The intersection of IoT sensors and blockchain gives that farm operation data they can use internally or sell. The data itself are digital assets – and blockchains provide a secure place to store and deploy these assets— with no intermediary.

The New Competitive Edge

Businesses that lack integrated autonomous operations will not be able to compete with those who do. In the last tech revolution – the Internet Age – old-school businesses that didn't adapt were crushed by those deploying the latest technology. Netflix killed Blockbuster, to cite just one example.

It'll be no different this time. Thanks to blockchain technology, commerce worldwide is reinventing itself. Companies that do not create or install integrated autonomous operations will be the Blockbusters of the 2020s – and this will be a crucial measure of potential value for investors.