

## ESSAY

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## Ancient Philosophers Understand Blockchain Better Than Most of Us

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## Abstract

This essay argues that blockchain technology is best understood not just as a socio-political and financial instrument, but as a philosophical proposition — one that resurrects the oldest questions in human civilisation concerning power, truth, sovereignty, and justice. Drawing on the intellectual traditions of Socrates, Aristotle, Heraclitus, Epictetus, Plato, Marcus Aurelius, and Seneca, the essay contends that ancient philosophy provides a more penetrating analytical framework for evaluating blockchain's promise and limitations than contemporary regulatory or technical discourse alone.

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**JEL Classifications:** *A10, B41, O33, G28, D63*

Most blockchain advocates quote Satoshi. I went further back. 2,500 years further.

Socrates was killed for questioning authority. Epictetus built a philosophy of freedom from inside slavery. Marcus Aurelius ruled the most powerful empire on earth and spent his private hours writing reminders to himself not to abuse it. These were not theorists. They were people who lived the problems that blockchain is now attempting to solve architecturally.

I have been thinking about what they would make of this technology. Not as a thought experiment, but as a serious provocation. Because if you strip blockchain back to its first principles, what you find is not a technology story. You find a philosophy story; one that is at least 2,500 years old.

Socrates spent his life doing one thing: questioning the legitimacy of authority. He was executed for it [1]. His entire method rested on the premise that truth is not handed down by rulers or institutions; it emerges through open, rigorous, adversarial inquiry. Blockchain, at its core, does something structurally similar. It removes the need to trust an institution by replacing institutional authority with cryptographic proof and distributed consensus. Bitcoin's network has maintained over 99.99% uptime since 2009 without a single central authority managing it. Ethereum, now processing billions of dollars in transactions daily across finance, identity, and digital ownership, has operated continuously since 2015. Zcash has run without interruption since 2016, adding the dimension of privacy as a fundamental right rather than a privilege. These are not experiments. They are existence proofs. Socrates would not

have needed convincing. He would have understood it immediately, because he lived the problem it solves.

Aristotle would take a different approach [2] [3]. He was interested in systems, in how communities organise themselves, in what makes governance just rather than merely functional. His concept of distributive justice was precise: people should receive what the rules actually entitle them to, not what those administering the rules decide they deserve. That distinction matters enormously when you look at what has happened inside centralised financial systems. The 2008 crisis was not just an economic failure. It was a justice failure. Over 8 million Americans lost their jobs, millions more lost their homes, and the institutions responsible were recapitalised with public money while counterparties received what those in power decided, not what the rules said they should. Aristotle would have been deeply interested in the idea that a protocol can enforce rules without a sovereign interpreting them. He would also have been the first to scrutinise on-chain governance carefully, because he knew that rule by the majority is not automatically just, and that centralised components within a decentralised protocol can still produce oligarchy, regardless of what you call it.

Heraclitus believed that the universe is governed by a hidden logos, a rational principle underlying all apparent chaos, and that the only constant in existence is change [4]. He famously argued that you cannot step into the same river twice. Blockchain encodes both insights simultaneously. Its ledger is permanently changing, every block a new state of the world, yet the underlying logic is immutable and universally verifiable. No

single actor decides what the river looks like next. The protocol does. Heraclitus spent his life arguing that most people sleepwalk through reality, mistaking surface appearances for truth. He would look at the global financial system and see exactly that: billions of people accepting the word of institutions as truth, without any mechanism to verify it independently. He would have found in blockchain the first technology in human history capable of making the logos visible, auditable, and shared.

Epictetus is the one I find most striking in this context. He was born a slave. He built an entire philosophical system around one idea: distinguish what is within your control from what is not, and build your life accordingly [5]. Managing peer-to-peer transactions from a digital wallet, without intermediaries is, in philosophical terms, an act of radical autonomy. The World Bank estimates that around 1.3 billion adults globally remain unbanked, excluded from financial systems entirely through no fault of their own [6]. For those people, a digital wallet on a blockchain is not a technical feature. It is the first financial instrument they have ever owned and controlled. And stablecoins extend that further. A farmer in sub-Saharan Africa or a small business owner in a hyperinflationary economy can now hold a dollar-denominated asset on a phone, without a bank account, without a credit history, without permission. That is not a fintech product. That is economic sovereignty made accessible for the first time in history. Epictetus would have recognised that immediately.

Plato argued that a just society rests on truth being verifiable and shared [7]. Blockchain makes that possible in domains we have barely begun to explore. A patient's medical records on an immutable ledger, controlled by them rather than a hospital system. A supply chain where every step from raw material to shelf is permanently audited and cannot be falsified. Intellectual property rights recorded at the moment of creation, removing the need for costly intermediaries to establish authorship. Digital identity that belongs to the individual, not to a government database or a technology platform. These are not peripheral applications. They are the philosophical core of what a sovereign world looks like when its infrastructure is honest by design rather than by promise. Aristotle would have called this the foundation of a truly just polis. We are only beginning to build it.

Marcus Aurelius ruled the most powerful empire on earth and spent his private hours writing reminders to himself not to abuse that power [8]. His *Meditations* are not the writings of a man comfortable with authority. They are the writings of a man who understood that power concentrated in a single point is always one moral failure away from tyranny. He wrote that the purpose of power is to serve, not to possess. He would have been profoundly interested in a governance architecture where no single emperor, no single institution, no single node can override the rules that everyone agreed to follow. He would also have been its most rigorous internal critic, because he knew better than anyone that good systems do not guarantee good actors. He spent his reign fighting the corruption of his own court while writing philosophy in his tent. Blockchain gives us better

architecture. It does not give us better human beings. Marcus Aurelius would have insisted we remember the difference.

This is, in fact, the internet that Sir Tim Berners-Lee originally envisioned [9]. A decentralised web where individuals, not corporations or governments, control their own data. What emerged instead was the opposite: a handful of platforms capturing, monetising, and surveilling the digital lives of billions. Berners-Lee has said so himself, describing his creation as having been taken in a direction he never intended, and his subsequent Solid project is a direct attempt to restore individual data sovereignty through decentralised architecture. Blockchain is not a departure from that original vision. It is its most credible continuation.

I have been making this argument since 2018, when I coined the term Evidence-Based Blockchain (EBB), precisely because the philosophical case was never enough on its own [10][11]. EBB is a structured intellectual methodology for how we ask better questions about this technology, how we frame problems rigorously before attempting to solve them, how we cite the highest quality of filtered evidence, how we apply frameworks like PCIO (*Problem-Comparison-Intervention-Outcome*), and the "5As" - (*Ask, Acquire, Appraise, Apply, Assess*) to evaluate real-world applications, publish findings, subject them to peer review, and build a cumulative body of valid knowledge that policymakers, clinicians, regulators, and industry practitioners can actually rely on. It is, in short, the application of scientific discipline to one of the most consequential technological shifts of our time. From blockchain-verified pharmaceutical supply chains reducing counterfeit medicines entering patient care, to immutable academic credential records eliminating degree fraud, to land registry pilots in emerging economies giving smallholder farmers legally defensible proof of ownership for the first time, the applications are not theoretical. They are operational. The sovereign world the philosophers described is not built on promises. It is built on verifiable truth. That is what Evidence-Based Blockchain demands, and that is what makes it a philosophical commitment as much as a technical one.

Seneca would have understood the systemic critique just as quickly. He wrote extensively [12] about how wealth corrupts institutions, how proximity to power distorts judgment, and how the powerful construct systems that perpetuate their own privilege. The fact that the top 1% of the global population controls a disproportionate share of personal wealth, largely through instruments designed and administered by centralised institutions, is not an accident of markets. It is a structural outcome. Seneca would have recognised what blockchain is attempting to dismantle.

Yet the philosophers would not have been content with technological advancements alone. They would have demanded evidence that this sovereignty reaches those who need it most. And herein lies the technology's most glaringly challenging problems.

The 1.3 billion unbanked people [13] this technology is supposed to liberate are not always digitally literate enough to

operate a wallet, navigate a decentralised application, or understand what they are signing when they approve a transaction. Self-sovereignty sounds like liberation until you realise it also means self-responsibility. There is no help desk when you lose access to your funds in a permission-less decentralised finance pool. No institution to call when the distributed code fails. With great power of self-sovereignty comes great responsibility, and responsibility without education is not freedom, it is exposure. The printing press did not democratise knowledge because it was philosophically correct. It democratised knowledge because anyone could read a page. With the emergent need for trust and efficiency, Blockchain will soon find its equivalent moment, the point where the depth of the idea and the simplicity of the experience become one and the same. And beneath the literacy problem sits a deeper structural one. Approximately 2.2 billion people worldwide still lack access to the internet [14]. A sovereign digital world that requires connectivity to participate is not yet sovereign for a significant portion of humanity. Until mobile internet access is treated as infrastructure on par with roads and electricity, and until blockchain education is embedded in school and college curricula rather than confined to conference halls and technical whitepapers, the technology's liberating potential remains unrealised and inaccessible to those who need it most.

These are not abstract questions. They are the questions that serious policymakers and regulators are now asking, often without the philosophical vocabulary to articulate them precisely. The EU's MiCA framework [15], the FCA's ongoing cryptoasset consultations [16], the IMF's repeated warnings about systemic risk [17], all of them are wrestling, in regulatory language, with questions Aristotle posed in political philosophy two and a half millennia ago.

Blockchain is the most radical socio-political idea of the 21st century, often disguised as an economic instrument. It challenges the notion of power, trust, identity, sovereignty, societal rules and regulations. Those are not technology questions. They are the oldest questions in human civilisation. And we are answering them right now, in real time, mostly without realising it.

Socrates was killed for asking them.

We have the luxury of a keyboard and a choice. The question is whether we are using it wisely, or simply repeating the same mistakes with better software. The ancient philosophers would not have been impressed (yet) by the technological advancements alone; they would have been watching what the humans do with the technology.

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