# CHAPTER 1

# Why Blockchain Matters



You don't need to be a tech expert or an economist to follow the story that I will be telling in this book, together with my co-author Nathan. You just need to check one of these boxes:

- You have spent money.
- You have owned a document that was important enough that you didn't want it to be corrupted or lost.
- You have some level of curiosity about human beings and how society functions.

Our guess is that you checked all three, so we are good to go. These three themes will be critical to our discussion:

1. *Money*, because that's the best-known function—and today the primary function—of blockchain.
2. *Documents and data*, because blockchain will come to redefine how we handle these and which ones we trust as the "source of truth."
3. *Human beings and human society*, because, in truth, anyone who describes blockchain as just "a technology" or "a money system" really doesn't get it.

A blockchain is a shared digital ledger—a record book that lives online, which is copied across many computers. It is designed so that

once something is written into it, nobody can secretly change or erase it. I don't mean they can't do so without penalty—they simply can't. And that's what makes this a story about integrity, not just tech.

So, instead of relying on a government office, religious authority, or corporate database, the blockchain itself becomes the reference point everyone can check. At its core, blockchain is a system that will redefine how we carry out some of our most important interactions with other humans—moving value (money), determining what records are accurate (documents and data), and coordinating at scale (human beings and human society).

What it gives you is not abstract; it's things that matter to all of us.

To anyone who hates the fact that institutions hold disproportionate power, consider this: banks control the record of your money. Governments and corporations control the records that define your identity and rights. AI systems and algorithms determine how we understand the world around us. And it doesn't stop there. Credit-checking agencies act as judge and jury over whether you can sign up for this or that service, based on their collection and interpretation of your records. They ultimately decide whether you are trustworthy, employable, or creditworthy. They may even shape your family's future by deciding whether you should, or should not, merit a mortgage for the home you want to buy.

Blockchain is about rebalancing that power and cutting out this huge web of middlemen that exert so much control. Want to check my creditworthiness? I'll give you access to certain details from my wallet (a digital app for managing assets), and you'll see exactly how I conduct myself.

What blockchain offers is such a unique fit for the deep needs of humanity that its mass adoption is inevitable. But if you're thinking to yourself that you don't yet see this happening, you're right. The blockchain world has so far failed to convey a critical message—why any of this matters and how it could help ordinary people in their daily lives.

The big innovations of the last quarter-century—smartphones, cloud computing, social media, movie streaming, and online banking—all have something very simple in common: their names alone tell you exactly what they do. As a consumer, my reaction is simple: I understand it, I want it, and I get it.

The term *blockchain* perfectly captures the technical beauty of the system, but says nothing about what it does or how it can make

a practical difference in our everyday lives. Nobody walks around saying, "I need a block and a chain."

*Blockchain* may have made it into the dictionary (Merriam-Webster, 2018) and become a buzzword because of hype over Bitcoin prices, but it has yet to persuade the wider global public why it actually matters.

## IntegrityLand

If you could rub a lamp, summon a genie, and be granted three wishes, what would you ask for? One catch—you're asking on behalf of all humanity, not just for yourself. After all the obvious asks like solving hunger, ending war, curing cancer, and so on, how about asking for integrity?

Integrity sounds like an abstract concept. Maybe it even sounds pompous. But it's not. It's an attribute we can easily appreciate. Just think of it as the antithesis of Las Vegas. Not the city as it actually is, but the city as it's caricatured in popular culture—the version immortalized in slogans, sitcoms, and cheesy bachelor party montages.

Vegas is a metaphor for a place where you can do what you want, act in ways that violate your own values—and none of it counts. "What happens in Vegas stays in Vegas" has become a cliché. You can make choices you wouldn't make elsewhere and hope they vanish the moment you leave. It's a worldview built on the idea that what's out of sight is out of mind, with no consequences to face.

Vegas is a place where even the most solemn of agreements—marriage—is on the blurred borderline between counting and not counting. In movies, drunken Vegas unions are often quickly dissolved, laughed off by friends and family. In the sitcom *Friends*, after Rachel and Ross marry in Vegas, Phoebe, wide-eyed, asks: "Wait, wait. A wedding in Vegas actually counts?" Monica replies, deadpan: "If you get married in Vegas, you're married everywhere."

Imagine a place that represents the exact opposite of this Vegas caricature—a place you head to when you need to make an agreement you care about. You go there because it's a place where contracts can never be faked or tampered with. A place where payments agreed in a contract are made automatically, without intervention. A place where you can entrust money to someone—say, for

investment—knowing that every clause governing its use is clearly set out, with guaranteed, unfakeable, real-time tracking of its whereabouts.

Welcome to IntegrityLand. What happens in IntegrityLand doesn't stay in IntegrityLand. It follows you, everywhere and forever, in a good way. Everything you agreed to sticks like glue. IntegrityLand is governed by a system that's as strong as the rules of nature, such as the force of gravity. If it was agreed upon, it happens, period. You go to IntegrityLand when you need something to count—especially if you're dealing with someone you don't know personally (something more common than ever) or whom you don't trust. Or, most importantly, when interacting with someone who has greater power than you, such as a big corporation or government. When you want it locked in, tamper-proof, no loopholes, no pretending it never happened.

The IntegrityLand we are talking about is, obviously, blockchain. It's a system that everyone uses, but because of that, nobody controls. An environment where the system itself is the adult in the room: keeping receipts, holding everyone to their word, and refusing to forget. That's why, as I mentioned, what I foresee is blockchain and the internet morphing in the future, and my working title for the entity I expect to emerge is the Integrity Web.

A set of unbreakable rules like blockchain would have been handy at any point in human history. But today, it's more than handy; it's a matter of urgency. Let's see why.

## The Storage of Your "Stuff"

What "stuff" makes up your life? And where is it stored today, compared to where it would have been stored long ago? This storage problem is, at heart, a documents-and-data problem. Who holds the authoritative record of your life and assets, and who gets to be the "source of truth"?

Take money, for example. Where do you keep it? For the most part, not in a shoe box or in a home safe. Most of your money is on a bank's electronic ledger. They—not you—hold the authoritative record of how much money you have. If they (or more commonly, the state directing them) decide to freeze, misuse, or mismanage your funds, you'll likely find out too late and, almost certainly, with

no recourse. That vulnerability is the documents-and-data problem in a nutshell.

How do we address this problem? For starters, a tamper-proof public ledger would change who holds the keys to your records. In brief, blockchain protects your "stuff" by making the record public, verifiable, and tamper-proof—so ownership doesn't depend on trusting any single company or government.

Then there are your electronic files. Perhaps the most personal are your photos and videos—essentially, your memories. Most of us now have far too many for our walls or shelves, so they live on cloud servers, where we have no idea if they're being leaked or misused.

Our social media posts—the closest thing most of us have to diaries today—are handled by companies that also hold huge amounts of our personal information. Your life story is posted online in fragments; your likes, your locations, and your interactions are all being used and monetized every day by the people you trust to preserve them.

Another concrete example of your "stuff" is your credit score—our system's shorthand for your creditworthiness. You cannot establish it yourself; a third party calculates it from data you don't control. You can't see how the score is compiled or contest it with your own evidence. Your word doesn't count.

These are just examples. In each, the takeaway is the same. In the past, we would have looked after this "stuff" ourselves, with a big sturdy lock for which we alone had the key. Today, it's in the hands of others.

Of course, we want to retain all the benefits of electronic life. But do we want to hand over so much control to others, slipping it into their black-box systems with no guaranteed way to see exactly what's happening to it? If there were another way that was just as convenient, we believe almost every human alive would opt to use it.

This is important for many reasons, not least that as every year passes, more and more is happening away from our gaze. Millions of platforms are competing for us to download them to our phones, many of which handle some portion of our finances. The way we imagine digital crime is that criminals will siphon huge sums from our accounts. But we are likely to see (or, even worse, fail to notice) crime that involves cheating in the calculations—in the computation.

If criminals do this, the ledgers of the digital world will fill their pockets, potentially with nobody noticing for days, weeks, months, or even years. After all, would you notice if your payment app was miscalculating your balance by a dollar or two?

And the truth is, traditional audit systems can't keep up. They weren't designed to monitor billions of computations happening in real time across thousands of apps. That's why we need new systems—built from the ground up with integrity in mind. Systems where every result can be cryptographically verified, instantly and automatically, by anyone. Not just faster—but provably trustworthy.

The great British writer C. S. Lewis, who died in 1963, wrote that integrity is "what you do in the dark," a quote often paraphrased as "Integrity is doing the right thing when no one is watching." This is precisely what blockchain provides. We already rely on digital systems for everything. Now we need to improve those systems so that they are truly trustworthy. We've moved our lives online—it's time our systems caught up with the integrity we expect offline. And with blockchain, that integrity doesn't belong to a corporation or government that controls it; it belongs to all of us, collectively. In this sense, we reclaim ownership of both our physical and digital lives.