Bitcoin, Web 3.0, and the Internet of Money

Bitcoin, Blockchain, & Crypto
Understanding the user-owned internet and the bitcoin opportunity for business
Kin + Carta Whitepaper 2021

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When something shows signs of fostering a revolution more impactful than either the internet or the smartphone, the world sits up, takes notice, and, slowly but surely, takes action.

We are in the midst of a cryptocurrency revolution right now, and the promise is phenomenal for individuals and organizations alike. Bitcoin in particular is growing faster than any other form of money in human history, and, yet, the rate of adoption is still surprisingly low: only 2% of the world’s population is onboard.

As with many game-changing innovations, this presents a significant opportunity for first movers and would-be industry leaders. The journey toward crypto maturity isn’t an easy one, but it’s an achievable one if the route is laid out before you.

That’s why we’ve outlined the five stages of understanding Bitcoin (and bitcoin) to help you realize the true potential of digital money, reevaluate blockchain-based solutions, and devise a crypto strategy with your crosshairs fixed firmly on Web 3.0—an imminent era in which control is decentralized and users own some part of everything to which they add value online.
At Kin + Carta, we’re here to make the world work better, and that means embracing changes to the concepts, products, and services that make the world work, which ultimately begins with money.

**Key takeaways**

**Bitcoin is the innovation, not the blockchain**

Bitcoin spelled with a capitalized “B” refers to the network protocol secured by miners, and bitcoin spelled with a lowercase “b” refers to the currency (depicted as BTC on tickers). As an open-source network protocol, Bitcoin will underpin all future growth of the products and services built on Web 3.0, with bitcoin the currency as the incentive to secure it, and the Bitcoin protocol to facilitate it. Both humans and machines have to value the currency for the blockchain to be secure. The closed nature of private blockchains as a data structure (and lack of value to the currency) means they cannot singlehandedly solve our problems, so an interdependent relationship with an open financial system is required to unlock its potential.

**Decentralization means more customers and more (cooperative) competition**

Because no single entity controls bitcoin, “the currency of enemies,” Bitcoin will provide a platform for more competitors to work together to provide value for customers who control their own decentralized financ-
es. Thanks to such sovereignty, those customers will pseudonymously own part of every product and service to which they add value online—from social media platforms to content streaming services.

The big debate: The many layers of Web 3.0
The history of money teaches us that currencies are a Winner Take Most category; however, the history of the internet indicates there will be many competing and complementary protocols. So, if bitcoin is the currency, and Bitcoin is the network technology, will Bitcoin be “the one ring to rule them all,” or will we use all kinds of blockchain projects? We believe there will be multiple blockchain protocols, but only one dominant currency, BTC. Altcoins are not going anywhere (except maybe down in value in the long term), but almost all value will accrue to bitcoin’s scarcity, and, so Web 3.0 will comprise many layers of both money and technology.
It’s the mid-90s. The internet is about to explode into life, and, yet, swarms of consultants are pushing intranets to their clients instead of preparing them for fundamental societal change and global commercial opportunity.
Fast-forward to the 2020s, and, sure, intranets are still ubiquitous and useful to organizations, but the landscape-altering impact that the open internet has had on the world is plain to see. Its growth was extraordinary—from 120 million users in 1997 to ~one billion in 2005—all made possible by an ever-growing stack of dozens of protocols (HTTPS, SMTP, FTP, etc) resting on the secure base layer of TCP/IP.

What’s this got to do with Bitcoin? The way we see it is that tomorrow’s internet of money will be a stack built on top of the open-source network protocol of Bitcoin and—you guessed it—it will be everywhere and accessible to everyone at any time.

Bitcoin is on course to reach one billion users by 2025, achieving this milestone far quicker than the internet. The trouble, however, is that its true potential has been restricted by the fundamental misunderstanding that the closed-system blockchain should take precedence in certain situations.

“Blockchain, not Bitcoin” is a meme-laden mantra of those who understand neither, and, of course, private blockchains are being trumpeted by the same kinds of voices that were so vocal about intranets in the 90s, leading to misconceptions of what the future really holds for digital-first organizations.

The reality—indeed, the urgent opportunity—is in “Bitcoin, then blockchain” (the latter was actually used to facilitate the
former, not the other way around). It only makes sense, then, for organizations to explore blockchain technology after they have mastered the network protocol that will underpin all future growth (Bitcoin) and the world’s first digitally native currency that will fuel it (bitcoin).

This open system has been perceived as a disruptive threat to the likes of financial services institutions, but even they are beginning to realize the benefits of decentralization and the commercial potential of a world packed with empowered users who own their digital identities.

CEOs are having to look at ways to tap into the fastest-growing network in the world and harness some of its potential as a major source of revenue. COOs are having to initiate entire operations processes to receive, hold, and pay with cryptocurrency. CDOs are having to devise new relationships and procedures with data sets because so many of them are now (and many more will be) owned by users.

The world is changing, and inaction is no longer an option for those who want to avoid the pitfalls of the costly demos and POCs of the mid-90s intranet rush. Bitcoin is here and it’s here, to stay, so now is the time to embrace the prospect of a user-owned internet and an omnipresent internet of money.
A brief history of Bitcoin

Bitcoin was invented in 2008 by Satoshi Nakamoto—an unknown person or group of people—and initiated in early 2009 when its source code was released as open-source software.

It was the first working example of a blockchain at scale, intended to solve two things:

- **Inflation as a problem of the past:** Bitcoin was, in part, created as a nonviolent protest against governments using inflation to steal the savings (and, thus, time) of private citizens to pay for the likes of wars—in other words, taxation without representation; and

- **Censorship as a problem of the future:** Bitcoin’s amoral and apolitical nature allows complete strangers to communicate in a free global market of money, circumnavigating the censorship of tyrannical governments (as Nick Szabo put it: “Bitcoin is the currency of enemies.”).

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"I don’t believe we shall ever have a good money again before we take the thing out of the hands of government, that is, we can’t take it violently out of the hands of government, all we can do is by some sly roundabout way introduce something that they can’t stop.” —F.A. Hayek in 1984
Anarcho-capitalist cypherpunks spent decades experimenting with ways to create a form of money outside of government control. With Bitcoin, Satoshi separated money from the state in a way that gave ~6.7 billion people living under weak currencies or authoritarianism the capacity to control their own wealth. It was created to accomplish the following:

- Resist taxation without representation via inflation and quantitative easing
- Counter the exorbitant debt and wealth inequality caused by fractional banking
- Remove the ability of governments to censor the transactions of private citizens

This was all enabled by leveraging existing technologies in novel ways, such as public key cryptography, proof-of-work (PoW) consensus, peer-to-peer (P2P) networking, and, crucially, incentivizing participation in the mining of a new currency by capping it at 21 million units, thus creating a virtuous cycle. Scarcity leads to hoarding and encourages humans and machines to compete to secure the network, which, in turn, increases bitcoin’s value over time.

Everything is tracked via an immutable, tamper-proof ledger and the world’s first working example of triple-entry accounting. This is typically when one first hears the word blockchain, but it’s interesting to note that the word itself wasn’t even used by Satoshi Nakamoto in
the original Bitcoin whitepaper—instead, in forum posts and emails, he/she/they later used “timechain.”

In any case, blockchains were used to facilitate Bitcoin, so to say “blockchain, not Bitcoin” is not and has never been entirely conducive to getting the most out of either of them. Bitcoin (the currency) is the moon, and blockchains (the technology) are only the finger pointing to it.

“A finger pointing at the moon is not the moon.”
—Thich Nhat Hanh

**Bit(coin) by bit(coin)**

Bitcoin is only 12 years old, but, at the time of this writing, it has already traded at $65,000, has had the backing of names like Tesla, Mastercard, and PayPal, and has now been adopted as legal tender in El Salvador. It’s the number one cryptocurrency, with a market cap of over $1 trillion, but it’s still not fully understood nor, indeed, leveraged at the core of businesses that stand to gain the most from it for both themselves and their customers.
Much of the capital deployed to blockchain solutions and applications has been misallocated, because blockchain alone can’t solve many problems. The real opportunity is to refocus on tapping into a network that is growing faster than the internet did over 20 years ago.

The consumer demand and commercial desire are there, but the crypto strategies and best-in-class crypto solutions for custody, lending, buying, and selling are not, which can mean only one thing: it’s a choice between action or reaction.
The journey toward Bitcoin maturity can’t, of course, be completed overnight, and it’s easy to get lost along the way.

Many consumers and institutions encounter objections to Bitcoin at various points as they seek to understand blockchains, but the key point to remember is that they are interdependent; the blockchain network needs the currency, and the currency needs the blockchain network.
Blockchain require a currency that is valued and stored by both humans and machines to ensure base layer security, so it’s essential to understand bitcoin as a currency first and Bitcoin as a network protocol second.

One way to do this is to break the journey down into manageable steps and deal with one objection at a time—a process we define as the five stages of Bitcoin maturity:

- **Stage one:** The Bitcoin hype
- **Stage two:** The blockchain frenzy
- **Stage three:** Too many chains (altcoins)
- **Stage four:** Bitcoin maximalism
- **Stage five:** Bitcoin enlightenment

Here, we’ll run through each stage to help you understand Bitcoin’s potential and avoid many of the pitfalls inherent in such a complex subject.
Stage 1

The Bitcoin hype

This is the stage of pure excitement. The headlines in the news, the debates on Twitter, the plausibility that a single bitcoin (BTC) will eventually be worth more than $10 million (as proposed by PlanB’s Stock-to-Flow and S2FX valuation models), there’s no denying that the hype is here, and it’s real.

“Bitcoin is a Ponzi scheme that starts with smart people.” —Naval Ravikant

Bitcoin has had its doubters, but much of the friction at this stage comes from confusion between the currency and the protocol.

You’re probably using the internet right now, but that doesn’t mean you need to understand the intricacies of the TCP/IP protocol to do so. You get to stand on the shoulders of tech giants and watch YouTube to your heart’s content. The same will happen with cryptoassets; a tech stack has been and will continue to be built upon the secure base layer
of the Bitcoin protocol, and all that users will care about is the digital money itself.

The hype today is driven by buyers, holders, and traders of cryptocurrencies who are speculating over which protocols they think will win, just as TCP/IP did back in 1995 (imagine how much a part of that would be worth now if you’d bought it then).

The Bitcoin protocol is leading the way by far because it’s opened up a whole host of advancements in not only technology but finance, too. BTC is the first digitally scarce, P2P, highly divisible, portable, verifiable, censorship-resistant good that humans have ever created outside of the power of any government or controlling entity—neither gold nor fiat currencies can lay claim to such properties, so the possibilities, as we’re beginning to see, are endless.

Its deflationary monetary policy means that only 21 million BTC can ever exist, so it won’t become the liability that inflationary cash is to individuals and organizations today. Moreover, the open-source nature of the Bitcoin protocol on which it is built means that anyone and everyone can know with absolute certainty where and how every BTC is spent as a global currency—in other words, no more printing money with no real accounting and no more taxation without representation. To that end, Bitcoin is a universal accounting protocol for the whole world.
Protocols will not trade like an ordinary market, they will trade like an adoption S curve. Beware of those who call the exponential climb of the first half of the adoption S curve as a bubble. /6
Stage 2
The blockchain frenzy

“We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run. —Amara’s Law, Roy Amara

Source: The Bullish Case for Bitcoin, by Vijay Boyapati
Once the hype has taken hold, it’s not uncommon for people to start exploring competing altcoins and blockchain designs. Many smart and well-meaning people gain interest in private blockchains and consortia at this stage but fail to find important uses for the technology because of digital transformation shortcomings and the like. As Wences Casares put it,

Saying you are interested in “blockchain, not Bitcoin” is like saying “I’m interested in the web but not the Internet”

Focusing instead on the interdependent relationship between the two allows you to see past the blockchain frenzy and into the true potential of an open-source protocol.

The fact that Bitcoin the blockchain protocol is decentralized by nature means that the value of bitcoin the currency can effectively continue to rise; people and machines are incentivized through game theory to mine and hoard it more than any other currency—and, thus, the virtuous cycle ensues. If the currency didn’t exist, the incentive to secure the network would be gone. If the blockchain protocol wasn’t decentralized, the currency would be prone to censorship and debasement, resulting in worthless currency, as we have with fiat.

Remember that the first working blockchain at scale was used to facilitate Bitcoin, so the concept itself is designed for digital bearer assets like BTC. Too many blockchain-based projects fail to get off the ground because they are applied to physical products, which simply aren’t as secure or traceable as digital assets and, of course, can’t be stored in a digital capacity.
The tail is wagging the dog

If we refer back to the intranet versus internet debate, we can understand the difference between investing in blockchains and investing in Bitcoin.

Let’s say you’re the CTO of Barnes and Noble in 1995, and, two years after going public, you trust an IBM consultant and invest in an intranet to convince your shareholders they’re backing the right horse. You use it to sell books directly to customers through mail-order catalogs (editor: this bit is actually true!), and things are looking up.

Jump to 1999, and you’re already squaring off and beginning to lose to Amazon.com because you didn’t invest in a website until 1997.

As reported by CNN Money, the e-commerce portion of B&N became publicly traded in 1999:

Buoyed by strong demand for Internet issues, Barnesandnoble.com priced its initial public offering late Monday at $18 a share. The offering, which was priced at the top of an already upwardly-revised range of $16 to $18 a share, will raise $450 million for the company as it squares off with its archrival Amazon.com (AMZN).

So, did you need to build an intranet or create an internet strategy in 1995?
Do you need to create a blockchain or craft a Bitcoin strategy in 2021?

Hindsight is a wonderful thing, of course, but this stage is where those who take decisive action can begin to pull away from the pack.

Your business model will be rendered redundant if, in a few years’ time, your competitors are cooperating to provide value to a completely open and decentralized network (Bitcoin), your customers have Swiss bank accounts in their pockets (bitcoin wallets), and more than half the world’s population has bypassed authoritarianism and become online customers (or competitors)—oh, and governments aren’t able to fully tax citizens either.

Before diving headfirst into blockchain, consider the decision matrix that other consultants don’t want you to see:
Do you really need a blockchain?

1. Can you articulate a real business problem that needs solving?
   - Y: Yes
   - N: No

2. Could it have been fixed before blockchains?
   - Y: Yes
   - N: No

3. Do you need a database?
   - Y: Yes
   - N: No

4. Do many people need to write it?
   - Y: Yes
   - N: No

5. Are writers known and trusted?
   - Y: Yes
   - N: No

6. Are writers' interests unified?
   - Y: Yes
   - N: No

7. You probably don't need a blockchain...
   - Y: Yes
   - N: No

Consortium (Hybrid)

Choose the best blockchain or distributed ledger technology.

Private

You don't need a blockchain but a private distributed ledger may serve your purpose.

Public

Based on your use case, determine the appropriate blockchain.

Do you need to rely on a trusted third party?

Do you value censorship resistance and immutability over efficiency?

Do you need to control read and write access?

Will all participants need to upgrade and replace systems?

Do the benefits justify the cost of adoption?

You might need a blockchain...

Source: Do You Need to use Blockchains?, by Jeremy Gardner, 2017
Too many chains (altcoins)

The volatility of bitcoin’s value—all the headline–grabbing peaks and troughs—make it easy or even necessary to weigh up your options. Who’s to say that it will win as the first cryptoasset? What other viable forms of digital money are out there?

Indeed, understanding the market is a critical part of any investment; understanding the altcoins is the next stage of this one. Altcoins are often created as part of economic systems that leverage advanced technology as part of new blockchain–based solutions to problems. The altcoins are then added to the ecosystem, and, through heavy-duty, tech–focused marketing, investors are encouraged to fund the projects.

The trouble is that the promises are all–too–often misleading. To begin with, control over them is centralized. For this reason alone, the projects are liable to be shut down due to regulatory concerns and, rather worryingly, the number of altcoins issued for a given system can inflate at any moment.
Moreover, the technologies they promote to solve specific problems usually exist already, and the currencies are added as quasi-incentives for using the networks, which, economically speaking, doesn’t quite click into place. The technologies nevertheless spearhead the campaigns, whereas the game theory and economic incentives for all actors within the system are left to languish.

The power of Bitcoin, though, is in the fact that it provides a technical solution that did not exist before—it leverages the blockchain, PoW, P2P networking, and cryptography to incentivize the efficient storage of wealth in a new digital currency. Many altcoin projects would arguably be better off focusing on their technologies and either integrating with the Bitcoin network or building bitcoin into their commercial strategies instead of creating their own currencies.

**The first-mover advantage**

It’s because of this incentive-driven combination that bitcoin is accelerating faster than any other form of money in human history. No currency has ever gone through the four chronological stages of adoption in a single human lifetime:

1. Collectible
2. Store of value (in 2021, Bitcoin is currently here)
3. Medium of exchange
4. Unit of account
This process usually takes tens or even hundreds of years, but the data suggest we are witnessing an end-to-end monetization event in our own lifetimes with digital currency.

This is why bitcoin’s volatility creates the illusion of instability; it’s experiencing the fluctuations that happened to gold over 5,000 years in a matter of only a decade or two.

It’s not easy to stomach all the ups and downs, but, from sea shells to salt to cattle to gold, history tells us that the first movers are the assets that win the races to global adoption.

If you think your business problem might need a blockchain, ask yourself the following: will the currency for that blockchain be able to compete with bitcoin as money? The past says probably not, so you probably don’t need a blockchain...

History does not repeat, but it often rhyme...
The properties that Bitcoin exhibits and the rate at which it is growing have profound implications for the future of digital currency—indeed, for currency. Period.

TCP/IP gained its market share as a secure base layer protocol and provided the foundation for what is now the invaluable internet protocol stack, including HTTPS, SMTP, and FTP. We’re already seeing this happening with the Bitcoin protocol; it’s rapidly becoming the base layer of the Internet of Value.

Bitcoin went from $0–1 trillion in value in only 12 years.

It might initially seem too complex for the common person to grasp, but the point is that the common person won’t need to grasp it, just as they don’t need to grasp how the Federal Reserve works to use the dollar or how 4G works to video call their family. Tomorrow’s people and organizations alike will simply benefit from it without needing to know how or why.
This is the argument for Bitcoin maximalism in the age of Web 3.0. It’s a measurable, transparent, frictionless, and autonomous way for anyone in the world to store and transfer their own money and even value their own time—free from external interference from the likes of governments and central banks.

Its marketability comes from the fact that BTC wins on each of the five key properties of a currency:
<table>
<thead>
<tr>
<th>Feature</th>
<th>Bitcoin</th>
<th>Gold</th>
<th>Fiat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durable</td>
<td>B</td>
<td>A+</td>
<td>C</td>
</tr>
<tr>
<td>Portable</td>
<td>A+</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>Fungible</td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Verifiable</td>
<td>A+</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Divisible</td>
<td>A+</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>Scarce</td>
<td>A+</td>
<td>A</td>
<td>F</td>
</tr>
<tr>
<td>Established Story</td>
<td>D</td>
<td>A+</td>
<td>C</td>
</tr>
<tr>
<td>Censorship Resistant</td>
<td>A</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Source: [The Bullish Case for Bitcoin, by Vijay Boyapati](https://example.com)
1. **Divisibility:** Each bitcoin comprises 100 million units called satoshis; the open-source code can always be updated if ever greater divisibility is required

2. **Durability:** The network’s distributed nature means that it can’t be shut down until there are no humans who value BTC left on Earth

3. **Verifiability:** Thousands of nodes are running on the network at minimal cost at any given time, which means that anyone can access them to validate transactions and honor the common rule set within the code in real time

4. **Scarcity:** The Bitcoin protocol is such that we know exactly how many units will exist and when, distributed until ~2140

5. **Portability:** Private keys can exist on a laptop, mobile wallet, hardware wallet, piece of paper, or even in memory; holders can access their wealth from anywhere via a 12- or 24-word recovery phrase

It’s because of these properties that many people end up on a bell curve when it comes to understanding Bitcoin. They start with the first mover itself, wade through the crowded market of flawed altcoins, and eventually reemerge hyper-focused on Bitcoin and BTC.

So, how do you plug into the Bitcoin network as an individual or organization? You can take one of two approaches:
The balance sheet approach: Converting cash to BTC as an individual or organization or accepting payments in BTC will allow you to integrate with the network and grow savings far faster than the rate of monetary inflation (over 20% in the United States), providing greater purchasing power over time.

The P&L approach: Engaging your P&L through Bitcoin products and services will open opportunities in a network that is doubling its number of users every year. More users drive more functionality, and more functionality drives more users (the fact that only 2% of the world’s population has exposure to it shows this is only the beginning).

“Metcalfe’s law states the effect of a telecommunications network is proportional to the square of the number of connected users of the system (n^2).”

You can see Metcalfe’s Law applied to Bitcoin here and here

Here are some areas of opportunity and ways in which the P&L for an individual or organization can integrate with the network:

- **Trading**: Allowing customers to buy and sell BTC
- **Banking**: Providing a comprehensive set of services to protect and grow an individual’s BTC reserve
- **Lending**: Allowing customers to take loans against their BTC
- **Yield**: Creating ways for customers to generate a yield against their BTC
• **Custody:** Safely and securely storing BTC for customers
• **Rewards:** Providing a mechanism for customers to earn rewards in BTC when they utilize a company’s core service offering

These are all viable routes in, but the universal draw of bitcoin is its continual appreciation relative to fiat currencies. This is the killer feature of Bitcoin as a protocol and why many new layers of products and services will be built on top of it to deliver empowering sovereignty to people around the world—trusted third parties will eventually become a thing of the past in personal finance.

The organizations that embrace and integrate with this new monetary network will be the ones who realize the potential of this new global force of consumers, with new use cases alongside new partners in new industries all over the world.

If we can already imagine machines transacting without humans, payments streaming in real time and contractual agreements without third parties, the possibilities of Bitcoin are endless!

Global Bitcoin adoption could even force corporations to address their impacts on climate change by incentivizing the use of cleaner forms of energy, such as solar, wind and geothermal. Much of the energy used in bitcoin mining actually comes from renewable sources—and the potential is industry disrupting.
Welcome to Web 3.0, the era of the user-owned internet.

Over the next 10 years, investors, founders, employees, workers and users are going to become owners. This is crucial—every user will be rewarded with fractional ownership in the digital products and services they use.

This decentralization allows every user of the internet to pseudonymously own their own digital identity, real estate, equity, and more. Here are the possibilities for disruption in this Web 3.0 paradigm, using FAANG as an example:

- **Facebook** = Users own their social networks, likes, comments, pictures, videos, etcetera, and can take those things with them like a keychain to any other social media platform...or even sell them as Bitcoin-backed currency;
- **Amazon Web Services (AWS)** = Fog computing is the ability for
people to lend their additional computing resources to others and receive payment in real time; it will replace much of cloud computing. Imagine your phone being used by scientists to cure cancer while you sleep.

- **Apple** = Early adopters get paid equity in fractional shares in the company. Tokenized equity is everywhere.
- **Netflix** = A value-for-value model emerges where the users pay for what they actually use. Real-time streaming replaces most subscription services.
- **Google** = Censorship based on country, nationality, political affiliation, or ethnicity is a thing of the past. For good and bad, content is decentralized and cannot be taken down or thwarted by engineers’ current search algorithms. Can’t Be Evil > Don’t Be Evil.

This stage is where you and everyone else can interact with the world as a sovereign individual. You own your data, everything you do is private, and you make money every time you add value to an app or service. What’s the name of that protocol again?

A world united by an open monetary network is one that’s free of financial friction between parties, anywhere, at any time.

Integrated services with BTC payment functionality will allow for seamless transfer of value. Integrated products will operate on a value-for-value model with users and will take a fair cut as providers of the platforms. Integrated organizations will create new jobs and build best-in-class crypto solutions that attract new customers who were previously out of reach.
Underestimating Bitcoin

There are two things everyone underestimates about Bitcoin, including its supporters:

- (currency) the hard supply cap of 21 million BTC is known
- (technology) it costs more to attack the network than to defend it

Currency

Why is it important that everyone knows the total amount of BTC in the world? Imagine you are buying a house today. You (hopefully) know the percentage of your personal wealth you are using to make such an important purchase. Does knowing how much money you have change your decision of which house to buy? Of course it does!

Now, do the same for the world’s wealth. Imagine if everyone on the planet knew just what percentage was being used for things like the Louisiana Purchase, buying Alaska, or settling debts after world wars. How much would that change our decisions if humans as a species knew just how much of all our resources we are using for any given decision?

We can envision a future where every man, woman, and child (yes, even kids!) has a digital wallet that also displays what percentage of the world’s wealth is being used for any purchase. This ability to coordinate socially cannot be understated. It changes everything
about how we earn, save, spend, and invest.

**Technology**

The Proof of Work consensus mechanism is novel and important, because it makes Bitcoin the first digital invention that costs more to attack than to defend.

Think of Bitcoin’s energy as a digital moat. For someone to 51% attack the network, they have to burn more energy than it is worth to try to roll back transactions. Instead of aircraft carriers warding off smaller players who calculate the risk is not worth the reward, we have miners securing the network by cooperating in peaceful competition. It literally is not worth it to try to attack Bitcoin.

Lying can be thought of as an attack on truth. It takes 10x more energy to refute fake news than it does to say something false, which is why so many people do it. We have so many social institutions that rely on trust (i.e. news, banking, social norms), as well as violent institutions as providing protection in case that trust fails (i.e. military, police, prisons).

A trust-minimized future enabled by Bitcoin, though, will have second order effects.

- What will our news be like when anyone in the world can use the Bitcoin blockheight to timestamp all events globally?
- What is the implication of every person (and machine) on earth being their own banks?
• What happens to the military industrial complex when it is no longer needed to defend a hegemonic currency?

Again, even Bitcoin maximalists underestimate just how important these two aspects will be anthropologically.

**Leveraging the first-mover advantage to win**

Cryptocurrency success depends on a robust and unique combination of financial and digital strategy. There is no doubt that the market and its potential exist; the only thing working against those who want to be a part of Web 3.0 is time.

First movers on Bitcoin are already seizing the initiative with solutions around trading, banking, lending, yield, custody, and rewards, but slow movers are falling behind, and history tells us that losing ground is a costly condition.

So, how do you begin? The first step is defining why you need a crypto strategy in the first place. Rather than using blockchains as a solution looking for a problem, decide on the problems that Bitcoin can solve for you and your customers.

Do you need to integrate your payment solutions into the Bitcoin network? Will more and more of your customers need bitcoin
payment solutions in the future? How will you go about building those solutions and aligning your marketing strategy to crypto needs?

Get started on your journey toward crypto maturity with Kin + Carta today.
Growing alongside a network as an early adopter rather than competing against it is one of history’s greatest financial lessons. With Bitcoin, there are billions of unbanked people about to transcend the financial system and become sovereign consumers (and competitors) in their own rights—all from the comfort of their smartphones.

The industry leaders of tomorrow will be the ones who embrace Bitcoin and bitcoin today. They will be the ones who know the difference between buying into a private blockchain in the short term and investing in the open internet of money in the long term.
It’s time to be the change now or react to it later.

If you or your company would like to learn more about the Bitcoin value proposition, how Bitcoin can impact your business, and why your customers want you to use Bitcoin, then you can request a free custom one-hour webinar with Kin + Carta.

We also offer an introductory Bitcoin Strategy Workshop for companies of all sizes. In this workshop, our team members meet with your key stakeholders, such as Finance, Architecture, IT, and Executive Leadership, to go in-depth on the Bitcoin value proposition, as well as understanding your business, so we can best evaluate how Bitcoin can fit into your business. This program includes a half-day exploration session with your team, which is then followed up with our team members evaluating the marketplace and firming up opportunities for the enterprise. The program concludes with another half-day session presenting the opportunities and high-level potential solutions to your enterprise. This offering is $25,000, and we view this as the best way to start developing a full Bitcoin strategy for your company.
About Kin + Carta

Kin + Carta creates products, platforms and experiences that make the world work better for everyone.

A holistic, digitally native consulting business built for the 2020s, Kin + Carta makes the journey to becoming a digital business tangible, sustainable and profitable. By seamlessly integrating strategic consulting, software engineering and data expertise, Kin + Carta helps global enterprise clients Make It Happen. With a “roll up your sleeves” culture that values delivery over decks, Kin + Carta maintains a boutique feel at scale to create real business value.

Headquartered in London and Chicago, Kin + Carta provides clients with access to a global ecosystem of 1,600 technologists, strategists, and creatives across four continents.
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Appendix

Bitcoin mythbusting

“Cryptocurrency is a bubble.”

Bitcoin cynics often claim that an exponential increase on an adoption S curve is a sign of a bubble that’s about to burst, but it’s important to remember that many of the world’s most groundbreaking technologies—from railroads to the internet—have had their bubbles burst before realizing their ultimate potential. Bitcoin has already been through it three times; indeed, at least one more is expected before mainstream adoption. Bitcoin maximalism maintains that the core properties of the currency mean it will inevitably realize global adoption above and beyond all other currencies.

Further reading: Bitcoin Obsoletes All Other Money

“Proof of Work (PoW) uses too much energy.”

Bitcoin is a bounty for the world’s cheapest energy every 10 minutes. Although it’s true that bitcoin mining consumes vast amounts
of energy, what’s often overlooked is the fact that most of that energy comes from renewable sources like solar, wind, geothermal and hydroelectric. Bitcoin mining relies on extremely cheap energy consumption, which will incentivize (and then force) the market to deliver cheap and plentiful power sources that miners can use. The market forcing function that this creates will lead to the creation of new energy sources that otherwise wouldn’t have been thought possible. After mass adoption of BTC, we envision a future in which corporations are actually incentivized to use cleaner energy precisely because they can make a profit from being integrated into the Bitcoin network.

Further reading: Bitcoin Does Not Waste Energy – Unchained Capital

“Governments will ban bitcoin.”

Governments may announce a ban on bitcoin—China and India have already done so multiple times—however, much like the War on Drugs, they will fail to enforce this ban due to decentralization, incentives and popularity in public opinion. The notion that bitcoin will be banned by governments and banks is rooted in the reality that it is a threat to their control over the finances of their citizens. However, as a global and decentralized network, Bitcoin is fundamentally designed to put power back into the hands of the people and withstand any attempts from centralized entities to regulate or ban BTC completely—and the freedom the currency embodies is now far too established for any attempts to banish it to succeed. Perhaps most telling is the fact that many high-profile politicians and organizations have now come out in
support of it, indicating that the fight against it is waning.

Further reading: Bitcoin Cannot be Banned

**Additional resources**

Dive deeper into the world of Bitcoin and BTC with these widely read resources:

- This short video featuring Alex Gladstein of the Human Rights Foundation demonstrates why Bitcoin is aligned with Kin + Carta’s B Corp status and values: *Bitcoin Versus Big Brother: Financial Rights Are Human Rights [VIDEO]*
- This is probably the most shared article explaining the “why” of Bitcoin: *The Bullish Case for Bitcoin by Vijay Boyapati*
- Once you start to question “what is money,” the next step is to study its history: *Shelling Out: The Origins of Money, by Nick Szabo*
- Here is the plain English version of why it makes sense to invest, even if it’s just a dollar a day: *The case for a small allocation to Bitcoin by Wences Casares*
- Andreas Antonopoulos is one of the most respected authors and speakers in the space—this is considered by many to be his most important talk: *The Currency Wars and Bitcoin’s Neutrality: We Didn’t Start the Fire [VIDEO]*
• PlanB is a popular (and controversial) Dutch author whose writings on Stock to Flow make the case for $10 million per Bitcoin: Modeling Bitcoin Value with Scarcity

• Robert Breedlove is the Bitcoin maximalist’s maximalist. Here, he addresses almost every pitfall in understanding the asset and the network: BTC001: Bitcoin Common Misconceptions w/ Robert Breedlove [VIDEO]

• Michael Saylor made headlines when his company became the first publicly traded company to convert its entire balance sheet to Bitcoin. Here is why: BTC005: Bitcoin & Michael Saylor – A Masterclass in Economic Calculation [VIDEO]

• This article manages to make triple-entry accounting sound sexy: Why Everyone Missed the Most Important Invention in the Last 500 Years

• Possibly the most entertaining read in our list, Satoshi originally referred to Bitcoin’s data structure as a timechain, and this article explains just how much this might change society: Blockchain Proof-of-Work Is a Decentralized Clock

• One for the geeks (and one of the oldest viral articles on Bitcoin), this is required reading for critics of the technology backing bitcoin: Bitcoin Is Worse Is Better

• Tuur Demeester explains how the separation of Money and State is the next step after the separation of Church and State: The Bitcoin Reformation

Unfortunately, there is enough misinformation, science denial, and
poorly researched articles published on Bitcoin’s energy consumption that it warrants its own section. These are the writings that dispel the notion that Bitcoin is a long-term hazard for the planet:

- **Bitcoin is Key to an Abundant, Clean Energy Future**
- **Addressing Persisting Bitcoin Criticisms**
- **The Last Word on Bitcoin’s Energy Consumption**
- **The Frustrating, Maddening, All-Consuming Bitcoin Energy Debate**
- **On Bitcoin, the Gray Lady Embraces Climate Lysenkoism**
- **How Much Energy Does Bitcoin Actually Consume?**
- **Noahbjectivity on Bitcoin Mining**
- **Uncovering the Hidden Costs of the Petrodollar**
- **Bitcoin Does Not Waste Energy**
- **Critique #4: Bitcoin Wastes Energy**
- **PoW is Efficient**
- **Comparing Bitcoin’s Environmental Impact...**
- **Addressing Concerns About Bitcoin’s Electricity Use**
- **Check Your Financial Privilege**
- **Yassine Elmandrja on Bitcoin**
- **7 Misconceptions About Bitcoin**
- **Lyn Alden on Bitcoin**
- **Think BTC is a Dirty Business? Consider the Carbon Cost of a Dollar**
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