

CHAPTER TWO

The Current State of the Industry

CRYPTO CONSENSUS VIEW

Crypto is early. Scale and mass adoption are right around the corner.

UNBOUNDED CAPITAL VIEW

Crypto's lack of usage demonstrates a lack of product market fit and inherent technological problems.

The first thirteen years of Bitcoin and blockchain (up to the point of this book's latest edit in July 2022) have been dominated by crypto consensus goals and development. The state of the industry is a reflection of what is thought to be valuable by this consensus view. The crypto consensus believes that the industry is on the right track, but that it is still early. The lack of adoption is a temporary state, one which provides a huge opportunity to investors. This view is made clear in the investments that funds continue to make in technologies promoting decentralization, trustlessness, and censorship resistance.

In our view, the current state of the industry demonstrates the failure of this thesis. Inefficient technologies offering trustlessness and censorship resistance have been widely rejected by the public. Bitcoin in the form of BTC has become crippled. We see the digital gold use case as a last resort, a fallback from grander visions that still seems plausible given the consensus views on Bitcoin's technical limitations. Ultimately, we think this vision will run its course and be eclipsed by a version of Bitcoin in BSV which no longer

limits itself by seeking decentralization and focuses instead on expanding the efficiencies of Bitcoin through scale to create a better, more efficient internet.

THE REGRESSION OF BITCOIN

The widespread belief that Bitcoin is unscalable becomes more understandable when you realize that BTC, the most popular version of Bitcoin with a market valuation of \$750 billion, is unscalable by design. Despite originating with the potential described in the previous chapter, twelve years of developer tinkering has yielded a broken Bitcoin in BTC. The developers who have assumed control of the main Bitcoin code value decentralization so highly that they intentionally prevented Bitcoin from achieving scale. By imposing technical constraints on the amount of data that could be written to the Bitcoin database and removing the native programming language which enabled much of Bitcoin's functionality, the initial developers of Bitcoin transformed BTC into what they consider to be state-free money or "digital gold". **One of Multicoin Capital's three "crypto mega theses" is that global state-free money**, like BTC, will be able to capture a market they value at \$100 trillion.

Destroying Bitcoin's scalability resulted in a network that is slow and expensive, even at a level of usage that is miniscule relative to the valuation of the currency. As of July 2022, BTC's transaction fees hover around \$1.20 but have reached as high as \$50 in times of peak traffic. BTC's lack of scale has eliminated the possibility for most of Bitcoin's revolutionary features and use cases. Since BTC's only remaining value proposition is trustless, censorship resistant "digital gold," which necessitates that the network doesn't scale, BTC indeed does not scale. With scale topping out at around seven transactions per second, we don't see how mainstream adoption is feasible.

Some may respond to this critique by suggesting that Bitcoin will scale via layer-two solutions like the lightning network. Thoroughly explaining Unbounded Capital's critique of the lightning network here is not the best use of this ebook. Suffice it to say that even if the lightning network is able to alleviate BTC's transaction fees, its success would not enable Unbounded Capital's vision of Bitcoin. The lightning network creates an entirely separate network that does not share the features of Bitcoin as a scalable, public, and immutable database. From the perspective of the cryptocurrency consensus, a functional lightning network would be valuable because it scales the digital gold use

case, but even the most optimistic lightning network proponent would not suggest that it could enable the Bitcoin described in the previous chapter. As mentioned earlier, the only version of Bitcoin and the only blockchain that is trying to achieve Unbounded Capital's vision of Bitcoin is Bitcoin Satoshi Vision, otherwise known as BSV.

Ultimately, the success of the digital gold use case for BTC depends on what alternatives can emerge. We think that many investors who are interested in digital gold are interested in it primarily for its ability to serve as an inflation hedge that can be transferred over a communication channel. If given a choice between a version of Bitcoin with massive scale and utility that is seizable and recoverable or a version that is non-seizable and censorship resistant but is unable to scale, we think most will opt for scale and utility.

BITCOIN COMPETITORS

Although aspects of Unbounded Capital's vision for Bitcoin (like user-centric data ownership, improved interoperability, and improved privacy) have excited some operating within the cryptocurrency consensus, they assume that achieving it on Bitcoin is not possible. This assumption is rooted both in Bitcoin's perceived lack of scale, and also in the view that Bitcoin lacks key functionality that networks like Ethereum have. This has prompted the development of new, supposedly more scalable, functional protocols to accomplish what is ostensibly beyond Bitcoin's capabilities.

Blockchains like Ethereum were marketed in part as “turing-complete” Bitcoin. This insinuates that Bitcoin is not capable of the same types of computations that platforms like Ethereum are. This assumption is widely held, but is false. Multicoin Capital acknowledges that Bitcoin is “**technically programmable**,” but Bitcoin is widely thought not to be turing-complete. To be turing-complete is to be able to compute anything that a turing machine can compute, or as it is commonly understood, to have the computing ability of a modern computer. Bitcoin script, a function largely disabled by BTC, but re-enabled on BSV, is computed through a 2-PDA, a structure well known for being turing-complete. While the view that Bitcoin is incapable of what other smart-contracting platforms can do is erroneous, BTC's lack of scale at the time these competing platforms were developed made the interrogation of this false assumption pointless. In practice, BTC lacks turing-completeness, and the BTC developers' stubbornness about maintaining this limitation incentivized the creation of alternative platforms. Had BSV been around then, it is unclear whether or not these platforms would have proliferated.

Turing-complete, programmable Bitcoin alternatives like Ethereum have promised a vision of a decentralized web3. Today, the cryptocurrency consensus contends that their vision of web3, perhaps best articulated by Multicoins Capital, is still in the early days. At Unbounded Capital, we disagree. We believe the assumptions guiding the development of these protocols are in their late days. The theses built on these assumptions are being disproven in real time by a stunning lack of adoption and scalability.

What has twelve years of non-Bitcoin cryptocurrency development yielded? As of our latest edit in 2022, we have a landscape of thousands of non-Bitcoin cryptocurrency and blockchain projects which cumulatively are valued at over \$1 trillion. What do these projects do? Unfortunately, outside of enabling speculation on their future value, the networks do very little. The most highly valued layer-one Bitcoin alternatives like Ethereum, Cardano, and Solana have enabled few if any popular decentralized applications (DApps) and appear to have already hit scaling limitations. For instance, the most common use-cases of these layer-one blockchains in terms of DeFi and NFTs have also been most successfully used as vehicles for speculation.

With its launch in 2015, Ethereum was the first Bitcoin alternative to enable the development of DApps. Five years in, what is the current state of DApps? The website [State of The DApps](#) monitors DApps' and their platforms' publicly available metrics over time. The metrics (as of the book's original publication in 2020) reveal DApps to be a virtually unused technology.

Platform	Total DApps	Daily Active Users	Transactions (24hr)	Volume (24 hr)	# of Contracts
Ethereum	2970	62780	123190	21420	4900
EOS	332	31930	290290	205470	550
BSC	244	-	-	-	391
TRON	89	699	3	548	287
Klaytn	83	-	-	-	319
Steem	79	-	-	-	177
Hive	56	-	-	-	105
Moonriver	39	-	-	-	85
Neo	25	-	-	-	32
NEAR	25	1210	97480	29	24
Blockstack	24	-	-	-	0
XDai	22	-	-	-	60
POA	21	1	1	0	51
0Byte	17	16	207	211	162
ICON	15	1340	7300	1170	36
Loom	14	-	-	-	33
Meter	9	15	47	5	12
GoChain	7	-	-	-	17
OST	2	-	-	-	2
Total	4073	97991	518518	228853	7243

THE FAILURE OF DApps

Compare the cumulative ~ 4,000 DApps across 19 platforms seven years after Ethereum's launch to the Apple App Store's **900,000+ iOS apps** and Android Google Play's **1,000,000+ apps** available in 2013, five and four years after their respective launches. Seven years in, these DApps cumulatively generate less than 100,000 daily active users (DAU). Contrast this to the big winner of Apple's five year anniversary, **Candy Crush Saga, which generated over 128 million DAU playing 1.2 billion unique games per day by itself in Q4 of 2013**. Worse still, *State of the DApps* lists about 25% of these DApps as abandoned projects, suggesting diminished possibility for future growth for over a third of existing DApp projects.

Beyond the woeful metrics, what are the apps that do exist currently used for? As we've seen with Apple and Google's app platforms, a popular use case is gaming, which makes up the plurality of DApp's DAUs with roughly 30%. Online NFT games like **X World Games** (built on BSC) or retro-aesthetic role playing games like **Brave Frontier Heroes** (built on Ethereum) have 21k and 700 DAU's respectively, topping the *State of the DApp* charts for two blockchains leading on DApp adoption. However, these decentralized games pay a heavy price on user experience due to exceptionally high barriers to entry for user onboarding. To simply play DApp games like X World Games and Brave Frontier Heroes, users need to link crypto wallets, which requires making accounts on third party services like Metamask or Binance Wallet. Once made, these accounts need to be funded with the relevant cryptocurrencies, which often require users to make yet another account on one or multiple third party exchanges. Contrast this to typical iOS or Google Play games that either don't require sign-in, or, if they do, leverage authentication services like Facebook or Google where users already have accounts. iOS and Google Play games that come with a cost or include in-game purchases typically incorporate one-touch payments with everything denominated in, or automatically converted to, currencies the users already own.

Even if one is able to make a successful DApp given these user experience challenges, limitations on scale can kill momentum. The most famous example was CryptoKitties, **a digital pet breeding game which caused a massive amount of congestion on Ethereum** leading protocol developers to criticize the game for taking up space for frivolous reasons. Ethereum has made plans to address this lack of scalability, but doing so has added complexity to the developer experience. In fact, the CryptoKitties team found Ethereum proposed scalability solutions such as sharding to be so damaging that they **launched their own blockchain** instead of continuing to use Ethereum. Since the

original publication of this book, NFTs have seen a meteoric rise in popularity but have not managed to transcend the limitations of unscalable blockchains that Crypto Kitties demonstrated. More on this in Chapter Ten.

DApp OPTIMISM

Considering these shortcomings in user experience relative to the competition, it's no wonder DApp games have such abysmal traction. Despite attempting to buy additional scalability relative to BTC by sacrificing some decentralization, these platforms are still unable to offer a gaming experience that can compete with existing apps. So what else can DApps offer? The State of the DApps' data indicates that the majority (roughly 55%) of DApps' DAUs fall under the categories of Exchanges, Finance, Gambling, and Wallets, which together facilitate the buying, selling, trading, and saving of cryptocurrencies.

It's somewhat ironic that despite the DApp platforms' *raison d'être* of expanding blockchain's utility beyond BTC's digital gold use case, the same inability to scale while maintaining decentralization encouraged platforms like Ethereum to gravitate towards a vision similar to digital gold dubbed decentralized finance (DeFi) and another speculative vehicle for collector's art called non-fungible tokens (NFTs). Despite the irony, the shift to this focus makes logical sense for a few reasons. First, from a developer's perspective all of these are computationally cheap and thus technically feasible despite the platforms' lack of scale. Second, the DeFi and NFT visions and applications fall in line with the BTC inspired consensus understanding of cryptocurrency that suggests the technology's value is primarily financial in nature.

Operating in this DeFi context, these products are offering ostensibly novel services like taking out a USD-backed loan without interacting with any established financial institutions, and thus have no direct competition so long as "[not] interacting with any established financial institution" is the primary selling point. The last reason is perhaps the most subconscious, and most important, factor in attracting resources and attention to DeFi. Because it is currently technically possible to build tools on an unscaled protocol to facilitate speculation, which is fundamentally about *future utility*, the cryptocurrency ecosystem's lack of *current utility* due to unscalability can be forgiven. That is to say, by shifting the burden of scaling and utility creation to the theoretical-future, the failures of the practical-present can be ignored while still claiming cryptocurrency as a revolutionary technology.

WHY HAVEN'T DApps SUCCEEDED?

The consensus' explanation for DApps abysmal traction and lack of user friendliness is that the technology is still in the early stages of its development. The infrastructure that DApps need to succeed is still being built and scaled. Once their scale is increased, they will be more user friendly and able to compete with the likes of Candy Crush. Multicoin Capital says as much in a blog post titled "[The Web3 Stack](#)",

"Considering how much of the Web3 stack is still under development, it's no wonder that dapp usage is abysmal: it's practically impossible to build usable dapps given the state of the Web3 stack today! Like many other technologies, the Web3 stack will progress slowly, and then quickly after surpassing some tipping point.

"The dapp revolution will happen shortly after the Web3 stack achieves some level of usability, stability, and feature-completeness. I suspect this is 2-3 years out."

In 2022, four years after this blog's publication in July of 2018, DApp and decentralized protocol scale have shown no real improvement. The idea that it is still early would make more sense if not for the array of new Bitcoin-alternative blockchains that have been developed since and claim to enable greater scale. A fund like Multicoin Capital, which has invested in several allegedly scalable layer-one protocols, needs to explain why these protocols currently lack DApps. After investing in DApp platform [Solana](#), Multicoin Capital published [a blog post that claimed](#) "Solana offers all the properties that developers of trust-minimized apps need," noting its ability to enable throughput that "today supports 50,000 transactions per second on a global network of 200 consensus nodes." Platforms like Solana have failed to get significant traction with DApp creators and users because they are either unable to actually achieve the scale they claim, or perhaps their product – a DApp platform offering trustlessness and censorship resistance – is not wanted. In Solana's case, although it has significant technological problems, it has largely been used for minting and trading NFTs. Even with this lack of demonstrated product market fit, [funds like a16z are still investing in a DApp future](#), having recently led a \$21M token sale for NEAR protocol, a platform for building DApps.

Unbounded Capital's explanation for the failures of DApps and the allegedly-scalable platforms they are built on is that the people who are funding and building these technologies fundamentally misunderstand the value of Bitcoin, cryptocurrency, and decentralization. These DApps are built to provide a trust-minimized, censorship-resistant user experience. This is not valued by the market for reasons we will explain in Chapters 3 and 4.

FUNDRAISING AND UTILITY

In our view, the ICO (initial coin offering) craze of 2017-2018 goes a long way in explaining the continued investment into DApp platforms and protocols without any demonstrated product market fit. According to an [article in CoinTelegraph](#), ICOs were used to raise \$6.9B dollars in Q1 of 2018. Most of this was for platforms or protocols that could be used to build DApps or for specific DApps themselves. This ICO craze launched the careers of many crypto investors and made it appear that there was genuine interest in the goal of decentralizing the internet. The early success of DApp oriented theses and early retail investor enthusiasm has fueled years of continued development without continued interest from users or retail investors.

Just a year after [Dentacoin](#), a blockchain concept for the global dental industry, individually set out to raise \$28M, only \$118 million in total was raised through ICOs in Q1 of 2019. This was in part because the fundraising mechanism of an ICO had gone out of style, primarily for legal reasons. It still points to a declining interest from the broader public and suggests that the current theses are unsustainable. It will take time for these projects to run out of money, as VCs are still providing a lifeline to the DApp industry, but ultimately these platforms need to get some traction or interest will die out completely.

The following focus on other token offerings such as Equity Token Offerings (ETOs) and Security Token Offerings (STOs) after the year of 2018, as well as the craze surrounding non-fungible tokens (NFTs) in 2021 were similar in that they initiated with great optimism only to lose traction for one reason or another.

WORTH THE COST?

The decision to intentionally cripple Bitcoin's inherent scalability in the name of decentralization has been an incredibly costly error for the cryptocurrency consensus. What was gained in a theoretical concept like decentralization came at the expense of providing a network that could generate enormous utility. This trade-off has rendered BTC and the cryptocurrency consensus' favorite Bitcoin-alternative projects unable to deliver more than a casino of virtual assets and hobbyist level games and applications that fail to generate interest. At Unbounded Capital, we think it's clear that the demand for inefficient DApps simply isn't there. Attempting to convince people that they should want a decentralized network for ideological reasons appears to be a failed strategy.