

Bizantine Capital



Public Blockchains – What’s the Big Deal?

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An Upgrade to the Internet

Public blockchains will be as important to the world as the internet. The internet allowed for the frictionless flow of information. Public blockchains allow for the frictionless flow of value.

Value has been a second-class citizen on the internet, until now. Value has been largely overlooked by businesses, who have accepted commercial banks, payment rails, and payment APIs as they are, who have accepted data accumulators, data brokerages, and targeted advertisers as they are. We propose that blockchains will flood the world with ‘value opportunities’, just as the internet flooded the world with ‘information opportunities’. We propose that the flooding of value opportunities will shift the current [attention economy](#) to the intention economy, where people are driven by not only information, but also value [1].

Value can be broken into two buckets: investments and data. Both of these subcategories are valued via some fiat currency’s unit of measurement depending on your country of residence. However, as we mention in our article on [automated market makers on public blockchains](#), cash will lose its monopoly on its medium of exchange function; all payments will be able to be made with many investable assets, with cash just as one option, just as cash is just one option for investing (and, in times of rampant quantitative easing, the least intelligent one [#longgold](#) [#longcrypto](#) [#notinvestmentadvice](#)).

Public blockchains’ disruption of finance is known as decentralized finance. Public disruption of the internet’s architecture (data ownership, file storage, compute, etc.) is known as the decentralized web. We’ve written extensively about [how finance will be disrupted](#). We haven’t yet written anything long-form about the decentralized web, as it is further out and there are significant unknowns about how it will unfold — the further out we try to predict the future, the harder it is to predict [2].

However, we can directionally point to the advent of user-owned data, regardless of how that data is stored architecturally. While most of our analysis has focused on the back-end involving public blockchains (the architecture of these systems), now we will focus on the front-end: what are the new user experiences that public blockchains create.

We have focused largely on the back-end because we believe in the fat protocol thesis and that interoperability enabled by [liquidity is the greatest moat in the space](#). The newest front-ends in crypto will still command profits, but likely at lower margins than the current monopolistic front-ends of the internet. The back-ends of these systems will capture significantly more value than the front-ends. However, we also believe that other investments may be successful that do not align with the fat protocol thesis, namely investments that benefit from either the economies of scale of securing private keys (i.e. [Coinbase](#) or [Bitgo](#)) or the liquidity of certain layer-two protocols (i.e. automated market makers, like [Curve](#), or lending/margin exchanges, like [dYdX](#)).

It is significantly harder (perhaps impossible) to accurately describe what the front-end disruption will look like, as opposed to what we’ve done internally (point directionally to the future, via the opportunities enabled by the newly created back-end). But we’ll do it anyway, as it’s a fun exercise and we believe the past (namely the history of the internet) may forecast the most likely

outcomes of public blockchains’ consumer experiences. Our best hope from this brief exercise is to inspire builders to tackle what appear to be the most clear opportunities for public blockchains.

Looking backwards, the most impactful use cases of the internet have been:

- To allow anyone to become their own journalist (Facebook, Twitter, Medium, Reddit, and Youtube are all very similar — what’s different is how they organize information and what type of media their UXs encourage)
- To allow for the frictionless search of information, allowing people to find information that fits their knowledge interest (Google search is the most obvious example, although Wikipedia has been extremely impactful as well)
- E-commerce, which can be abstracted more so as purchasing goods/services based on digital information, a.k.a. purchase without retail (Amazon, Expedia, Uber, Shopify’s enablement of anyone to launch an e-commerce site, etc.)
- To allow for people to work together on complex tasks/documents from remote physical locations (There are a plethora of collaboration tools with increased popularity, but some of the most well-known are Atlassian, Zoom, Slack, Figma, Airtable, Google docs, etc.).

These primary use cases can be further broken down into simpler buckets that remove the complexity/examples:

- Share information for fun/news
- Find information
- Purchase via information, a.k.a. purchase without retail
- Share information for productivity/creation

Projecting these simple concepts from the frictionless flow of information onto the frictionless flow of value is easy, although it may initially appear ambiguous as to what each means:

- Share value for fun/news
- Find value
- Purchase via value
- Share value for productivity/creation

Because value can be broken into both investments and data, there are really two separate sub-buckets for each of these buckets. Extrapolating these simple concepts into more concrete examples renders the following table:

Concept	Investment Sub-bucket	Data Sub-bucket
Share value for fun/news	Allow anyone to become their own bank/investor; allow anyone’s portfolio or investment opportunities to be followed by any other investor	Allow anyone to become their own data center; allow anyone’s data to be fully controlled by them, and consequently used/purchased by anyone else

Find value	Search of deals; find investments that best fit your interests	Search of data; find data that best fits your interests
Purchased based on digital value (the top section represents the front-end; the bottom action represents the back-end effects for enterprises)	Purchased based on the dollars put at risk by the seller of the good/service, allowing buyers to punish malicious/fraudulent sellers; Purchase without using a bank	Purchase based on full-proof supply chain data that align with your interests; Execute logistics without a monopolized middleman overseeing the operation (Businesses can manage orders from other businesses in a highly efficient and transparent manner, allowing for decentralized Amazon.)
Share value for productivity/creation	Pool money for new investment opportunities	Pool data for new AI opportunities

Zooming in on each of these 4 buckets, and their sub-categories, we can clearly paint each consumer experience (Numbers are in reference to rows, with #1 starting at the top):

For Investments:

1. See [TokenSets](#) as a prime example of social trading to the max. This allows anyone to be a hedge fund manager or banker [3]. Users can either pay a competitive fee (the fees will probably be more similar to an ETF rate than the modern fund’s 2–20 rate, as giving anyone the ability to run a fund inherently makes fund supply much more competitive) for their capital to be pooled directly with the investor(s) they follow, or users can ‘follow-for-free’, but with the cost of buying/selling at high/lower prices respectively [4].

A strong trend behind the advent of global, social investing is an abundance of capital, a trend we are already beginning to see with retail traders on apps like Robinhood. Public blockchains allow for capital to be loaned or invested at scale without big banks or large fund raises, quite similar to how social media increased information beyond traditional news sources. Similar to how the internet has played out, some people may have their own investment sites (i.e. personal blogs, enabled by products like Wordpress), while others may be aggregated by platforms with strong network effects (i.e. Facebook).

2. With a flooding of investment opportunities, there will need to exist a search engine that sufficiently directs consumers to the value-opportunities that best interest them.

3. See [Numerai’s Erasure protocol](#) as a prime example. Users can purchase items based on value staked behind the service. This is subtle, but allows for greater leaps in trust across e-commerce.

If a seller wrongs a buyer, that buyer can slash the capital put at risk by the seller. Money programmatically put at risk leads to greater trust in the seller.

Additionally, all purchases can be done without financial middlemen, as people can purchase items without traditional bank infrastructure mediating the purchase. Today, I can send [USDC](#) to China for cents in fees, with the transaction cleared in 13 seconds and settled in 2 minutes, a far cry from SWIFT and the rest of the incumbent payment infrastructure.

4. Certain investments will only be possible through the pooling of capital (i.e. syndicate formation). Blockchains will allow for the frictionless and programmatic pooling of capital, such that small retail participants can become one larger force on a cap table, getting into deals they could not previously. If the capital target is not met, the capital would be returned to all of the investors, paying only cents in fees for the attempt. Opportunities like these are particularly exciting, as it can allow low-income communities to have equity for the first time in a long-time (arguably since the 1950s). That said, technology alone will not be enough to fully solve the poor's access to equity; politics will need to play a role as well.

For Data:

1. Data is both information and value. While user-owned data is subtle, it will allow for entirely different information-consumption experiences. A social media site today can be thought of as a protocol (i.e. followers-based, friends-based, etc.) with an algorithm that navigates the user through the protocol. The protocols that underpin social media will remain the same, but user-owned data will allow for users to interact with the same protocol using different algorithms.

We could both use the Facebook protocol, but our feed algorithms may be completely different, as we can choose an algorithm that best aligns with our given intent of that time (i.e. what are my college friends up to, or what are people in a certain neighborhood of Brooklyn up to, etc.). It doesn't mean we're not friends; it just means that we care about different things at the moment. No longer will our interaction with social media be controlled by one company.

2. Finding the right algorithm to deploy over your social media accounts will likely require a search engine, as there will likely be a plethora of these algorithms, each optimized for certain data sets. Additionally, there will likely be a desire for people, whether you're an investor or machine-learning programmer, to find all sorts of data outside of social media applications, which will require a search engine as well.

3. Consumers will have increased access to the data on the products they purchase. One could imagine that the most valuable data people would care about is climate and humanitarian impact, as those values most align with growing consumer values.

Additionally, [see EY's Baseline Protocol](#) as the nascent beginning of a decentralized logistics protocol, where a group of enterprises can communicate with the trust and efficiency of a singular Amazon, allowing for mom and pops to compete with current monopolies on user-experience, namely pricing and shipping time. This poses the end of logistic monopolies that extract rent from the supply-sides of their marketplace networks.

4. Certain data is only valuable if it is pooled together. Users will be able to pool their data (and earn) for enhancing AI algorithms. Users will likely be able to choose who benefits from their data, if they care.

Conclusion

Across both investments and data, it is clear that consumers will have a much greater voice on how money is allocated for investments (consumers choosing instead of banks) and how data is consumed for both personal gain and corporation/societal gain (AI). Having a greater voice on how capital and data is allocated in society, as well as how data is consumed by oneself, will render the intention economy, the end of the attention economy. This is what value as a first class citizen on the internet leads to, where interests are not controlled by big-banks and big-tech, but by a decentralized group of billions.

Additionally, public blockchains avoid the monopolies that have naturally formed around modern internet businesses. Public blockchains are permissionless (the more decentralized the blockchain, the more permissionless the blockchain), meaning that extracting monopoly rents is nearly-impossible [5]. The front-ends that allow for the interaction between consumers and value will still accrue worth, but they will be hyper-competitive from the start to the end, whereas Web 2.0 companies were only competitive at the start [6]. In blockchains, [the winner-takes-all effect will only exist at the protocol layer](#), not the application layer, although it will end up [being winner-takes-most \(~90%\)](#), not winner-takes-all [7].

Notes of Interest

All of the use cases have the underpinnings of information as well: public blockchains are only possible because of the internet. For example, deciding which investors to follow also requires conversation/analysis about which investors are picking the most attractive investments; value and information will flow hand-in-hand.

It is possible that the flood of value-opportunities is initially similar to the flood of information-opportunities, where the inflow of both high-quality and low-quality value opportunities increases significantly. However, we believe it is extremely unlikely that low-quality value opportunities traverse to the same extent that low-quality information has, as regulations around value are already much more strict than regulations around information.

Endnotes

[1] In economic speak, consumers will optimize the value of their lives — not necessarily focusing solely on monetary, but according to whatever variables they choose.

[2] The largest open question in Web 3.0 to what extent the storage of data and the computation over that data can be decoupled. We believe that they will be fully decoupled.

[3] Users can lend to the companies that those they follow are lending to; users can invest in a startup that those they follow are investing in.

[4] This is an indirect fee, as the users would be trading/investing immediately behind the primary investor, thus paying via price changes instead of management/performance fees. Different users will have different fee/UX preferences.

[5] Because blockchain protocols are free/open APIs, any company charging rent above their economic profit will immediately face competition from a party that undercuts them on pricing, providing the exact same user experience at a lower cost to the user.

[6] Web 2.0 companies lost their competitiveness because each marketplace/platform is a closed loop, with 0 open APIs. Those that won the network effects game have user-lock in (on both their buy-sides and supply-sides) and can extract significantly more than they could in a competitive environment.

[7] Protocols will have [the defensible network of liquidity](#) (Liquidity can be represented via investments/money directly in the case of decentralized finance or data in the case of decentralized web,), the only defensible network effect in the space.