I wanted to write a reply to this for a long time, because the presentation does seem a bit one-sided

Understanding sidechains [

General Layer 2

](/c/layer-2/32)

NOTE: The views expressed here are my own and do not necessarily represent or reflect the views of others or my employer. Thanks Albert Ni for review and discussion. Intro Layer 2's importance to Ethereum is growing by the week, and everyone knows it. However, "layer 2" is an imprecise label. Right now, when people say "layer 2", they tend to mean "not on Ethereum layer 1". But the way something interacts with Ethereum layer 1 matters a lot. Different solutions that are all considered "layer …

Here are my points.

1. Clearly, there are two camps, some people like blockchains and do not like non-blockchains, some people like non-blockchains and do not like blockchains. I personally belong to the former.

2. The term sidechain is meaningless

. There are blockchains

, and the future is imo an internet of blockchains

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1. Satoshi Nakamoto created an incredibly secure system resilient to government intervention. People used BTC from the beginning to avoid and fight the government

(for instance to sell weed on the Internet or to sell porn). People use Ethereum to avoid and fight the government. KYC/ML is a pretty unfair, bad, and racist thing. Try to pass KYC/ML if you have an African passport. This is how much black lives matter.

People who dislike KYC/ML and want to exchange ETH for USDT go to Uniswap. The world's financial system is deeply unfair to the entire continents of people that have no chance. These people see crypto as a solution. And they want a high level of anonymity and decentralization

1. We all hope that PoS can be as incredibly resilient and secure as PoW. At the moment, we are very early

in making this happen. If a friend of mine asks me for advice about moving $10K from PoW to PoS I would tell him to move $100, wait a month and move another $100.

ETH is moving from PoW to PoS. BTC is not. There are bad and good things about PoW and PoS. Yes, the burning of electricity is a bad thing. But the problem is much more complex than simply good PoS vs bad PoW.

1. Centralization is a big potential threat to PoS. Validators are known, they are vulnerable to government attacks and, what matters the most they are for-profit organizations.

2. Only the actual control matters. One million PoS agents can be executed by a single party. Therefore, talking about zillions of agents a particular PoS network runs is meaningless

in my opinion. Moreover, when people that know that this metric is meaningless keep on bringing it up, I personally start questioning the motives.

1. There is no PoS network in the world in my opinion that has effective decentralization score

of more than 100 parties.

I am happy to see many independent small parties join PoS networks, but in my estimate, they do not control significant stake

. Happy if someone comes up with statistics that prove otherwise.

1. All the above means IMO that PoS great future if it improves, and it will inevitably co-exist with PoW. PoW will probably never die, and ETH1 will never die in some shape or form. When the time comes, some miners will simply remove the time bomb and keep on mining

. There is absolutely nothing wrong in my opinion. Let all flowers bloom.

1. Coming back to PoS. Centralization tendencies are pretty obvious at the moment, but I am sure when things become too centralized. the community will find a way to fight back

One promising and simple way we see at SKALE is using amendments to GPL to enforce decentralization (we call it DGPL). That's why by the way GPL is so much better

than Apache. Apache is not a copyleft license, it is a tool of a corporate world.

1. When the community of validators around the world reaches a reasonable level of decentralization (I am sure it will eventually happen because lots of people will refuse centralized systems), the level of decentralization will be pretty much the same for all blockchains

. We clearly see it at SKALE where most validators that validate ETH2, validate Algorand, Graph, Filecoin, SKALE, and the rest. Due to the nature of validator business, the business is geographically segmented

. If you are in, say, Finland and validating Algorand, you will want to add all other reasonable networks

. Same for investors that want diversification.

This is a very strong convergent trend that makes the security of networks comparable

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Clearly, ETH2 is the leading project and it will have more small validators than the rest. But the security of other major projects will not be drastically less

than the security of ETH2. That's why the notion of a sidechain makes no sense. The world of tomorrow is an internet of blockchains, plus some other networks like storage. There will be no Uberchain and unterchains.

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That's why notions of layers, sidechains, non-custodial vs custodial, are meaninglessly flawed. They just do not represent the reality of the world.

This is my main objection to the line of thought cited above - the line of reasoning does not represent the future.

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The world of tomorrow will be internet of secure blockchains

and not a single Uber-chain with a strange set of layers.

Simple things are better than complex ones

, and if something can be done using simple architecture there is no need for a complex one.

Every single thing in Web3 can be accomplished using the internet of blockchains.

Satoshi Nakamoto by the way clearly understood this

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I have re-read Satoshi's messages recently. He wanted many blockchains and he wanted to use merge mining for this.

Other smart projects like Polkadot, Dfinity, Algorand understand it too, the camp of people that believes in the Internet of blockchains is big and growing

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I think rollups may also have a pretty significant market share.

In some cases they can be very useful. After all, theoretical constructs are a bad way to predict what people will actually use.

We will see in 2021 how this plays and what users decide. There has to be a reasonable discussion since no single party has a monopoly on truth.