

So I am not opposed to ASICs. The issue is that Eth has a social contract from it's founding to be asic resistant and move to PoS. The PoS transition: staking longer than anticipated, so an algo shift keeps that social contract in place. It is that social contract that attracts many developers and give Eth it's community lead. Sonia-Chen @Sonia-Chen Mar 21 13:51 ves, agreed and I think so far the progpow discussions are still healthy and ETH has the right to switch to progpow, and I think the switch can be successful! the dangers I am seeing: 1. afri bullied out Danno Ferrin @shemnon Mar 21 13:52 And asics are the future of crypto when it comes to permissionless store of value. But there is only room for one crypto to be secure per Sonia-Chen @Sonia-Chen Mar 21 13:52 1. others being attacked now (alexey) Danno Ferrin @shemnon Mar 21 13:52 Alexy is on point that state size is the biggest threat to Eth. Bigger than price and mining. Linzhi Sonia-Chen @Sonia-Chen Mar 21 13:53 you are right ok let me back up a bit: when progpow was started, it could have been rejected decisively at the beginning but it wasn't there is more than just code if progpow is adoped, what are the consequences? does that mean a future fork is more or less likely? does that mean the transition to PoS will be easier or harder? those questions are very hard to answer Danno Ferrin @shemnon Mar 21 13:54 I think the PoS transition will be easier if PP passes. If PP fails it will be harder. Sonia-Chen @Sonia-Chen Mar 21 13:54 I think it's the opposite, let me explain why: Danno Ferrin @shemnon Mar 21 13:55 PP shows that the devs are comfortable "moving the cheese" Linzhi Sonia-Chen @Sonia-Chen Mar 21 13:55 an asic owner is tied to the network the asic secures a gou owner is not the gpu owner can be much more aggressive it is our genuine concern, ok? we are not making up stories to sell chips we can be wrong! yes, sure Danno Ferrin @shemnon Mar 21 13:56 Yes, it increases the risk of 51% attacks. But then when Eth moves to PoS the GPU owners can move on. Linzhi Sonia-Chen @Sonia-Chen Mar 21 13:56 "can" why? imagine you own 100 mio USD of gpus please take a moment to think you are some rich business man you own 100 mio USD of gpus you will "move on"? Danno Ferrin @shemnon Mar 21 13:57 to a different coin. assuming there are any GPU coins left at that point. Sonia-Chen @Sonia-Chen Mar 21 13:57 from the largest GPU coin? right how many employees do you have? Danno Ferrin @shemnon Mar 21 13:57 Or move on to ML. Linzhi Sonia-Chen @Sonia-Chen Mar 21 13:57 it's just a thought example can't you imagine telling one of your managers "try all you can to keep the rewards flowing to my gpus"? and don't you think some smart guy really can have ALOT of ideas what "all you can" can be? you are sure this is not possible, yes? your story is: the honest businessman who owns 100 mio USD of gpus will instruct his workers to take them all off the shelves, sell them on ebay, close down the datacenter, return the transformers and terminate the power delivery contracts. my point is this: You need to think long and hard about who that owner of all these gpus actually is is it 100 Peter Salankis? then you are safe! is it Calvin Ayre? then you are in BIG BIG trouble

that's a fact I have a question for you, quite important to me so a lot of people are saying "the asic" makers do all this FUD but when you look at the recent medium post, by "Jon Stevens", titled "13 questions about progpow" did you see that article? Danno Ferrin @shemnon Mar 21 14:01 Sonia-Chen @Sonia-Chen Mar 21 14:01 this article is a masterpiece of FUD do you realize that? or you see it as a "helpful" article? I am curious how you feel about it Danno Ferrin @shemnon Mar 21 14:02 didn't read it too deeply. He had a lot of criticism but sprisingly came out in favor of PP. Sonia-Chen @Sonia-Chen Mar 21 14:02 FUD is so interesting we all think it cannot affect us it's not worth reading it deeply, but in terms of what this article is: a marketing masterpiece, written by or paid by nvidia maybe it matters, maybe not but when I hear "asic ... FUD..." I'm laughing we are just a bunch of engineers and the real FUD pieces like that one, people cannot even tell so veah that's how it is if progpow comes, it will empower the wrong people. hopefully it works out! the fork itself should not be a big problem I think, I said that. I don't believe asic makers will work on a contentious fork. I asked around. we don't, bitmain won't, etc. Danno Ferrin @shemnon Mar 21 14:05 this line of discussion underlines why I think your advocacy was ineffective. Rather than staying engaged on the the technical merits you focus on who funded it, that it was FUD, how I am a naieve developer, etc. you need to think yourself FUD is what you cannot detect, by definition Hudson asked me "write a paper how mining on GPUs benefits insiders" Danno Ferrin @shemnon Mar 21 14:06 No, hudson was prodding you to focus on the tehcnial issues. Sonia-Chen @Sonia-Chen Mar 21 14:06 but they are minor here. progpow should be safe. like Kristy says it looks like Ethash+ we published enough. the rest is up to the ETH community I don't think we can contribute much more quality thoughts (about progpow) if something interests you specifically, feel free to ask we will definitely be around. this is all just starting. if progpow is active in 2020 it will get very interesting. the ETH community will get stronger from this Danno Ferrin @shemnon Mar 21 14:15 thanks, talk to you later. Sonia-Chen @Sonia-Chen Mar 22 13:16 if and when you are interested in talking about money laundering, scammers, secret optimizations, unsellable chips etc. let me know Danno Ferrin @shemnon Mar 22 13:17 not really, but if I change my mind I know who to ask now. Sonia-Chen @Sonia-Chen Mar 27 11:40 hi Danno, how are you? have you heard of the randomness in Progpow? Danno Ferrin @shemnon Mar 27 12:55 Sonia-Chen @Sonia-Chen Mar 27 13:03 no concern. just wondering why it's in there. "random" is mentioned 22 times in EIP 1057. What do you believe is the function of the Danno Ferrin @shemnon Mar 27 13:06 KISS99 provides the determinstic randomness (kind of an oxymoron). It sets the lane swapping, the computation "progam" and some The function is to create a widely varying setup for the hash function. Since it is deterministic it is really pseudorandom, but there is no  $need\ to\ be\ pendantic\ in\ the\ spec\ since\ the\ function\ providing\ the\ pseudorandom\ number\ gerenation\ is\ clear\ and\ in\ the\ open.$ Linzhi Sonia-Chen @Sonia-Chen Mar 27 13:08 yeah but why is the random program there at all? Danno Ferrin @shemnon Mar 27 13:08 so that it has greater variation at each progpow period. A simple incrementor won't provide the needed variety of evaluation patterns. Sonia-Chen @Sonia-Chen Mar 27 13:10 the random program changes every PROGPOW\_PERIOD blocks to ensure the hardware executing the algorithm is fully" programmable

Danno Ferrin @shemnon Mar 27 13:11

what does that mean?

Yes, the spec even calls it out. perhaps it could have been phrased "the program that is derived from a pseudorandom sequence'  $basically\ it\ makes\ sure\ that\ whatever\ hardware\ it\ is\ running\ on\ is\ basically\ a\ GPU.\ Traditional\ mining\ ASICs\ could\ deal\ with\ fixed\ math,$ but the program derived from the pseudorandom sequence ensures that each lane has to have access to all the functions to be efficient. Sonia-Chen @Sonia-Chen Mar 27 13:13 the program is not turing complete no jumps, no loops, just forward arithmetic and read-only memory accesses Danno Ferrin @shemnon Mar 27 13:13 right, it's a calculation. Lack of pendantic spec is not a technical flaw. Sonia-Chen @Sonia-Chen Mar 27 13:14 an asic would pipeline this, just with more mux inside Danno Ferrin @shemnon Mar 27 13:15 correct. But at what point does the ASIC look like a GPU in architecture? Sonia-Chen @Sonia-Chen Mar 27 13:15 not at all. but I understand the "random" to you is basically OK the way it is. Danno Ferrin @shemnon Mar 27 13:16 it's a calculation to determine what calculations to perform. Sonia-Chen @Sonia-Chen Mar 27 13:17 EIP 1057 seems to be written with the claim that the randomness increases asic resistance, or forces "full programmability" (that's what it says) if it's clear that that is not the case then that's fine Danno Ferrin @shemnon Mar 27 13:18 as in you can program what calculations are to be done. programmable != turing complete. bitcoin's redeem scripts are programmable, but also not turing complete. Sonia-Chen @Sonia-Chen Mar 27 13:19 yes, but as I said an asic would pipeline this, a mux based dataflow controlled by an instruction decoder, so it makes no difference to an asic at all. it seems that is understood and ok, at least with you, great! :) Danno Ferrin @shemnon Mar 27 13:20  $more\ circuits, more\ die\ size, less\ efficiency.\ It's\ not\ that\ progrpow\ makes\ asics\ impossible, just\ reduces\ the\ efficiency\ gains.$ we might even gain efficiency because we can optimize that dataflow better than a gpu, but ok the "programmability" may make some people believe it "has to be" a gpu somehow you helped me a lot, thanks! Danno Ferrin @shemnon Mar 27 13:21 not a hardware engineer, but it has to do with the number of functional units that would be needed. Linzhi Sonia-Chen @Sonia-Chen Mar 27 13:21 to an asic the random program makes no difference it's not "random", because it would be a pipelines, with mux and instruction decoder if that is clear, all is good Danno Ferrin @shemnon Mar 27 13:23 right. pseudoranom. Predictable from a seed but otherwise not predictable from the output values. deterministic Sonia-Chen @Sonia-Chen Mar 27 13:23 it doesn't matter to an asic. just some logic Danno Ferrin @shemnon Mar 27 13:23 same with software. Sonia-Chen @Sonia-Chen Mar 27 13:24 some ops are slow, like div, but largely it's still a simple pipeline it's not programmable, it can only execute all variations of the random program, decode and calculate I don't think anyone has started with a design yet, but we might even gain efficiency over a GPU thanks to that program. I will Sonia-Chen @Sonia-Chen May 03 08:39 hi Danno! hope this finds you well. Has noone filled you in on the latest from the progpow frauds yet? Calvin is suing Vitalik, and gave Kristy new directions at their Toronto conference (and tweeted about it, since deleted). The tweet said kristy is "porting" her stuff from eth to bsv, whatever that means since you don't want to take me serious, maybe you can talk to Trenton van epps, he has been doing some investigations I don't know what Trenton found out and I am not in touch with him, but I know he has actually been thinking rather than blindly following fraudulent agendas... good luck! Sonia-Chen @Sonia-Chen Aug 24 20:42 hey Danno, sorry to bother you... But since you are still championing for the money launderers I know you are new to Ethereum, but please try to get in touch with the foundation, or vitalik. they know what is going on but I guess are proportionally also be a supported by the proportion of the proportionoone knows what to do... good luck! Danno Ferrin @shemnon Aug 25 12:28 Sonia, please stay away. Sonia-Chen @Sonia-Chen Sep 15 22:24 https://coingeek.com/kristy-leigh-minehan-bitcoin-sv-is-treating-miners-right-video/ can you give commentary to the fact that you are inviting a major BSV miner to help with Ethereum mining? Sonia-Chen @Sonia-Chen Sep 24 05:07

danno, apologies already about "negativity" and all that stuff... it's not true. it's just the power of inconvenient truths. I do not want to tweet this to not give BSV any publicity, but could you please read this?

https://svpool.com/business/bigger-blocks-will-make-the-whole-mining-network-raise-its-game/support of the control of the co

it's not third-degree, or association, or anything. please read for yourself. BSV will go to 0, but ETH will not.

 $klm\ is\ a\ major\ BSV\ figure\ and\ has\ been\ for\ a\ long\ time.\ scamming\ is\ her\ profession.\ sorry\ about\ that.$ 

wish you good luck!

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