

#cryptospring

AN ATMOSPHERIC REPORT



WITH CONTRIBUTIONS FROM:

Joe Lubin, Co-Founder of Ethereum & Founder of ConsenSys Simona Pop, Co-Founder of The Bounties Network Kevin Owocki, Founder / Chief Janitor of Gitcoin Danning Sui, Data Scientist at Alethio

And more...





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A Surface Report on the State of Ethereum

By Joseph Lubin, Co-Founder of Ethereum and Founder of ConsenSys

Every time the Ethereum protocol improves, more people enter the ecosystem. The design goals for Ethereum 2.0 are as meaningful for the protocol as for the community. Decentralization, resilience, security, simplicity, longevity. As PegaSys' applied researcher Ben Edgington recently wrote about Ethereum 2.0, "no participants will be required to have big-iron in order to be full participants of the system." Ben was talking about hardware, but this vision is for the people behind the machines, too.

Anyone can participate in the Ethereum ecosystem. It doesn't matter what country or college or company or codebase you come from. You can build dapps. You can build deep down in the stack. Who are the core developers? Whoever wants to commit to Ethereum. Look at the contributors on GitHub and find out. If you can commit, you can build.

Building on the Ethereum blockchain is only getting easier and more secure. Anyone who's ready can get a world-class DevOps experience through a suite like <u>Truffle</u>. <u>MetaMask</u> and <u>Infura</u> make it easy to manage accounts and connect to Ethereum without syncing a full node. Light clients are emerging. Every day, more plugins and APIs are available. The <u>EthStats</u> API helps you monitor the health of your node or network. <u>MythX</u>'s security analysis API helps you verify your smart contract code. These tools make us faster, safer, more confident builders.

The Ethereum ecosystem is also striving toward simplicity, which--as developers and designers know--is difficult to achieve. Gavin Wood and Andreas Antonopoulos's <u>Mastering Ethereum</u> is a public good for the entire ecosystem. It explains Ethereum in the simplest terms possible, while also doing justice to the wonder and complexity of the system. <u>ConsenSys Academy</u> is not only bridging the Ethereum knowledge gap but using Ethereum to secure and streamline accreditation. The <u>Kauri knowledge network</u> is simplifying content hosting, distribution, and discovery for anyone creating or looking for technical documentation about Ethereum. In terms of UX, Austin Griffith's <u>burner</u> <u>wallets</u> have made onboarding and transacting astoundingly simple for new users.

During all this talk of crypto winter, I believe we have already turned the corner into spring. Everyone wants to know what the signs are. Making blockchain predictions isn't all too different from making weather predictions. The best practice is to forecast according to surface reports upwind. This is what I know is happening on the ground in the Ethereum ecosystem:

• The dxDAO will be the first fully decentralized trading protocol. Gnosis is ceding full control of the DutchX exchange platform to the community via the dxDAO.

100% community-owned, Martin Köppelmann of Gnosis <u>predicts</u> that the dxDAO has the potential to become the largest financial entity on the planet. As outlandish as that sounds, it is never a good idea to bet against Martin.

- Digital publishers now have an open source option to archive their content in decentralized environments and deploy token-based business models. <u>Civil</u> will soon be natively integrated into Newspack, WordPress's new publishing platform. This is how quality online journalistic content becomes censorship-resistant and financially sustainable.
- **Crowdfunding is evolving.** Gitcoin's recent experiments in <u>CLR donation matching</u> are helping projects with many contributors get an exponentially larger match.
- The backbone of Ethereum 2.0 will soon be operating on testnet. Various teams that are building 2.0 Beacon chains are planning to sync on a testnet in coming months. Ethereum 2.0 is a thoughtful and elegant system that will usher in scalability at layer one, the base trust layer of Ethereum, even as many technologies come online to enable scalability in transactional throughput at layer two. 2019 will be a breakthrough year for Ethereum scalability. It has already begun.

Crypto winter was a phenomenon experienced mostly by those who pay attention to token prices rather than the exponential surge of development we saw in 2018 that continues unabated. I am fortunate enough to spend my days with people who are close to the machine and they continue to enjoy the balmy weather. For most builders, Ethereum public chain and application layer development has barely skipped a beat. And while some in the public blockchain ecosystem were fretting about token prices, enterprise blockchain development has done nothing but accelerate. At <u>ConsenSys</u> we expect to do at least five times more work on the enterprise side in 2019 as in 2018.

IF YOU CAN COMMIT, YOU CAN BUILD.

If I could tell buidlers a few things, I would say:

- **Commit to infrastructure.** Because blockchain technology rapidly unlocked liquidity, it is not likely to obey <u>the usual hype cycles</u>: they will be compressed and there will be a series of them as we have already seen since 2009. Commitment to infrastructure will help the ecosystem weather turbulence ahead and reach the real blockchain turning point.
- **Explore future business models.** Groups like EthMagicians Business Models Ring are thinking hard about token use cases and the market economies of Web 3.0. I agree with Kevin Owocki that <u>utility tokens</u> are just the tip of the iceberg.
- **Prize decentralization.** As Ethereum 2.0 shapes up and Plasma goes to mainnet, we will witness the emergence of a network of stateful networks. The real measure of

a blockchain is not just transactions per second but decentralized transactions per second and the cumulative decentralization of the network.

Have fun. Ethereum was built by developers for developers. And we are still somewhat in the hobbyist era for blockchain. Build what you want. Experiment. Think way outside the box. Don't do radio plays on television. Figure out what this new medium is really going to be all about. Build blockchain games. Play blockchain games. Games will be a great way for us to learn how blockchain-based mechanism design and cryptoeconomics enable new approaches to systembuilding. These new approaches will usher in an era of pervasive gamification within the systems of our societal infrastructure going forward.

When exactly will all the technologies—the core protocol, the layer 2 solutions, the token models, the UX, the public chain, the permissioned chains—combine and connect to hurl us beyond the blockchain turning point? They already have. Entrepreneurs and technologists are pouring into the ecosystem to build out the decentralized world wide web, Web 3.0. Once you've seen the profound implications of blockchain, you can't unsee it. Each new wave of the hype cycle will bring larger and larger cohorts of builders and users. For these people, there is no turning back.

> –Joe @ethereumJoseph

The Web 3.0 Universe Is Expanding

Exploring the Cartography of N-Dimensional Crypto-Market Spacetime

By Kevin Owocki, Founder / Chief Janitor at Gitcoin



It's always been peculiar to me that, to the average consumer, Ethereum is synonymous with ICOs. I imagine that when Windows 95 was released, most people thought desktop computers were synonymous with the minesweeper game that shipped with that operating system.

Since the 90s, the universe of use cases for computers has boomed to include games, telecommunication, entertainment, word processing, and many more applications. The ease of use to transfer information over a computer network without an intermediary (what we call the modern Internet) was a fundamental change in the way society self-organizes. As a result, we saw seismic shifts in entertainment, media, politics, and other important information flows within human civilization.

When I think about how the explosion of use cases for the internet mirrors the possibilities blockchain represents, I like to think about the abstractions that both eras of computing rely upon.

In computing, an abstraction is the representation of essential features without



including any background details or explanations. Abstractions are

- 1. used to reduce complexity, by allowing one to remove attributes of an object, by allowing one to more closely attend to other details of interest.
- 2. used like building blocks. They can be assembled together to create a bigger, more complex system with tremendous functionality.

For example, the following are all assets in the modern internet that can be represented via abstraction as Information: Mp3s, a blog post, a movie, code. The following are all assets in the modern economy that can be represented via abstraction as Financial Value: currency, a deed to a house, a stake in a company, a gift card, precious metals, a p2p promise between two individuals.

Like information, financial value is an important abstraction, which is used every day in society. The internet fundamentally changed society because it allowed us to move information around a worldwide network of computers. What will the innovation of blockchain, which allows computers to easily transfer financial value over a network, fundamentally change in our civilization?

Just as minesweeper was an early use case for computers, I believe that utility tokens are simply the first application of the blockchain-ized internet to hit the mainstream.

Just last week, I sent someone an email asking if they wanted to get lunch. Would you ever send someone a physical postcard to ask if they want to get lunch? No, because it's too slow and too expensive. When the movement of information became cheap + easy, people onboarded to the new platforms en masse in order to take advantage of these attributes. Email is used at 1000x more volume than the old, physical mail system.

Just as email (a killer app of the internet) changed the way we communicate, I'm confident that in the future, there will be a 1000x use case for blockchain technology. There will be many new and better configurations of organizational governance, business models, and society writ large enabled by the management of financial value via blockchain technology.

When you think of the internet, you don't think of TCP/IP, UDP, or CAT-5 cables. You think of Facebook, Google, Snapchat, and of Facetime calls with friends and family. It wasn't always this way. I remember back in the mid 90s when using the internet was expensive and complicated.

Similarly today, when you think of the blockchain internet, you hear about hash functions, public key cryptography, curved bonding schemes, payment channels, and other complex technology. Just like the internet got easier to use by abstracting the nitty gritty technical details away from the user, I expect the blockchain internet will too.

As a member of the <u>ETHMagicians</u> Business Models Ring, I am privileged to have a front row seat to conversations about startups that are building an open source

financial system. When we formed in 2018, we knew that utility tokens were overhyped, and we have been exploring the problem space of Web 3.0 business models, sowing the seeds of crypto spring long before crypto winter was a meme.

We aim to be the cartographers of this new n-dimensional market spacetime that we call Web 3.0 economics.

As we explore this new crypto-market spacetime together, I feel compelled to tell you about some of the trends I am excited about:

- **Security Tokens.** These could change the way society allocates investment capital, and (if we're lucky) cut Wall Street out of the equation.
- **Personal Time Tokens.** An Ethereum token backed by a human individual's time. For example, 1 token = 1 hour of work with that individual.
- Non-Fungible Tokens. <u>NFTs</u> have applications in not only games, collectibles, and attestations, but also in serious applications like deeds for real estate.
- Streaming money. It is such an obvious application of a new, open financial system to stream money from A to B--I cannot believe that only SpankChain is doing it thus far! We will see dozens of dApps use this business model in the coming months and years.
- **Decentralized Finance (DeFi).** <u>MakerDAO</u> has proven that stablecoins and collateralized debt positions can work on Ethereum. What other parts of the closed financial system can we port over to the new, open one?
- Decentralized Autonomous Organizations (DAOs). DAOs have been around for a while, but we are finally beginning to see hundreds of experiments blossom with the launch of <u>Aragon</u> on the blockchain.
- **Subscriptions.** Software-as-a-Service powers the legacy web. I have no doubt that <u>subscription models built on Ethereum</u> will be a fundamental force in creating investable crypto-native companies.
- **Bounties.** The exchange of money for labor is as old as civilization itself. I look forward to a new generation of freelancer economy built around this exchange, and built on transparent, open, blockchain technology.

It is too early in crypto spring to say which of these trends will blossom in the coming months, and which will remain nestled underground, waiting for their day in the sun. I, for one, am sure that some of them will bloom, and that when they do, it will herald the coming of #cryptospring.

Just like we chuckle when we remember the narrow view that people had of computers in 1995, when we look back at the blockchain revolution, we will smirk to think that "People back in 2018 thought Ethereum was just ICOs."

If you, like me, believe in the vast potential of an open source financial system, I invite you to join the ETHMagicians Business Models Ring. Join me in the wonderful, expansive, creation of a cartography of this n-dimensional market spacetime that we call Web 3.0 economics. Send me a tweet (@owocki) and I'll get you plugged in.

> –Kevin @owocki gitcoin.co

Emergence

By Simona Pop, Co-Founder of The Bounties Network

I recently watched the Lost Interview of Steve Jobs again. The 1995 footage was filmed for Robert X. Cringely's TV show, **Triumph of the Nerds**. Ten years before the interview, Jobs had left Apple in a bitter struggle with John Scully, the CEO he had brought into the company, and was now running NeXT. Two years after this interview, he would be back at the helm of one of the true game-changing companies of our time.

The main takeaways from the interview, aside from Jobs' charisma and genuinely visionary thinking, are the concepts he introduced as sheer novelty for a 1995 audience on the cusp of the dot-com bubble. Online shopping replacing catalogue or mail order purchases is one such example. Jobs could see the shift happening way before the general public would turn it into a multi-billion dollar business, reshaping long-standing behavioural patterns.

Analogies between the late '80s/early '90s tech space and the current state of crypto adoption are plain to see. We are still a small ecosystem, with niche audiences in mostly privileged geographies. Most participants are from developed countries and have all the necessary tools to participate in online communities—laptops, smartphones, stable internet connections. They also have disposable income that enables them to attend local and international events to access further information and resources. Whilst individuals and communities in developing countries are starting to embrace cryptocurrencies as an alternative to socioeconomic status quo, they mostly rely on less-than-optimal, makeshift exchanges to buy crypto.

It's safe to say that the access routes to our technology and the uses and real world applications are still a conundrum to billions of people. Yet evolution is inevitable. Old forms make way to new expressions and the flow of improvement continues its journey

The emergence of web3 itself is a spring blossoming out of the winters of web2. From that perspective, I believe we are already enjoying the spring of a new world dynamic. I believe that broadening access and understanding is the way we will progress to maturity and adoption (summer). As we continue to sow, grow, and prune, the roots of blockchain technology will strengthen and expand, the fruits will begin to emerge.

One the key drivers in the thawing and warming of perceptions towards blockchain and its potential will be education. Most people have faint or even distorted notions of what crypto and blockchains are. The vast majority never go beyond a "get rich quick" definition of tokens as a means of making money through speculation. It is going beyond this superficial understanding and learning the real use cases that will herald crypto spring.

I have long advocated for richer education as the necessary source of irrigation for our emergent ecosystem. Education across verticals and education that rewards people for their efforts. A framework for "earn as you learn" courses has been in the works as we at The Bounties Network have been interacting with passionate individuals outside traditional centres of economic power. The aim here is to redesign this new world dynamic from an inclusivity and empowerment standpoint.

By converting crypto-curious or passive crypto holders into emboldened champions of this technology, new ideas and use cases will emerge. By proxy, more inclusive and regionally relevant applications will be developed. Cross-pollinating ideas, skill-sets, and knowledge at a global scale will diversify and solidify web3 alternatives to existing frameworks.



Some of the germinating patterns of empowerment are beginning to show through self-organizing communities who now have the tools to create and maintain new income streams. When we ran our Bounties for the Oceans pilot in the Philippines, the key was enabling local applications of bounties as social impact incentives. By onboarding participants onto wallets and rewarding them for verifiable cleanups, we empowered them to continue the work long after we had gone.

As more people access infor-

mation, resources, and a global pool of work and talent, the new dynamic of fair rewards for contributions to meaningful projects will become the norm. The thawing will happen as people everywhere begin to realize their own worth in these new economies. By creating safe spaces that enable learning, growth, and earning a living, blockchain can effectively offer everyone a seat at the global table.

In support of this vision, at ETHDenver we will be rewarding efforts that make the world a better place. Bounties Network is partnering with UNICEF Ventures to prototype a new "positive action token." The pilot is designed to encourage BUIDLATHON attendees to participate in a variety of bounties throughout the weekend and continue to foster a positive impact in their communities.

As Buddha said: "When a single flower blooms, it is Spring throughout the world."

Simona @Sim_Pop bounties.network

across millennia.



Crypto Spring and the Return of the Internet of Money

By Bernhard Mueller, Security Engineer at ConsenSys Diligence

Is crypto spring coming anytime soon? That depends how you define "crypto spring."

Will you ever again be able to buy an arbitrary ICO token, instantly retire, and spend the rest of your life refreshing Blockfolio to marvel at 1,000% daily gains? Probably not. On the other hand, it is almost guaranteed that most of the world's financial transactions, as well as many other types of interactions that benefit from disintermediation, will eventually move to public decentralized infrastructure.

Over the next couple of years, I expect crypto projects to refocus on the original value proposition: Creating an "Internet of Money" that enables anyone with an Internet connection to transact peer-to-peer without the need for trusted intermediaries.

In a 2016 talk, Andreas M. Antonopoulos asked his audience to "imagine a world where every person has the ability not only to execute transactions, but also to create complex financial systems and instruments without asking for anyone's permission."

With dapps like <u>Maker</u> and <u>Compound</u>, we currently see the first wave of permissionless financial instruments emerging on the Ethereum network. However, this is just the beginning.

Crypto-collateral-backed stable coins like Dai are game changers because they connect intangible crypto assets to the real economy. Imagine a startup that runs on Ethereum

and charges its customers in Dai. This startup could issue security tokens that make holders eligible to earn dividends denominated in USD, which would in turn allow investors to perform realistic valuations of the tokens. This is just one example—there's myriad ways in which smart contracts can route revenues to employees and investors (that's the beauty of having an Internet of Money).

Here's a few more things I think will happen during cryptospring:

- Crypto startups start demonstrating product/market fit before raising investments. The times when startups could raise millions of USD on a half-baked white paper are (hopefully) over. I expect security token offerings to become commonplace once the proper legal framework exists. There will be less focus on tokens "mooning" and investors will want to see viable revenue models.
- We'll see a resurgence of DAOs and other blockchain-based organization types. The DAO concept has been somewhat tainted by the devastating hack of what was unfortunately named "the DAO," but smart contract programming practices have matured and we now know how to implement DAOs safely. Many new organizational patterns such as <u>Continuous Organizations and Decentralized Autonomous</u> <u>Trusts</u> will emerge.
- Innovation at the edge will accelerate. While the crypto bubble was devastating for many, its one positive effect was that it attracted a lot of talent, and enthusiasm in the cryptocurrency space hasn't slowed despite the bear market. I think that innovation will continue at a rapid pace as the major crypto networks compete for market share. We'll see a ton of new use-cases built, e.g. in the form of Ethereum "Dapps" and Lightning network "Lapps," with increased focus on enabling mainstream adoption.
- Blockchains that don't evolve to solve real-world problems will become obsolete. At the moment, there is little reason to own any particular crypto token besides for speculation (i.e. hoping that somebody else will buy them at a higher fiat valuation later on). This situation will change over the next few years. I think that we might still see major shake ups in the crypto top 50, and even completely new tokens capturing parts of the market.

Today's top cryptos differ significantly in terms of governance processes, political goals, ideological stances, and technical roadmaps. It will be super interesting to see who "got things right" and will still be around come crypto summer.

The blockchain hype of 2017 was built on the assumption that thousands of decentralized applications would be available instantly, but blockchain tech is still in its infancy. I just need to look at the sheer amount of development activity and innovation in our ecosystem to know that crypto spring will arrive in due time.

> -Bernhard @muellerberndt mythx.io

Notes from Underground: Mid-Winter Deployments

By Danning Sui, Data Scientist at Alethio

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair..." - A Tale of Two Cities

At the end of last year, the Alethio team <u>analyzed</u> how the "winter" fell on Ethereum miners. We saw several metrics as signs flagging the bear market and therefore the decrease in mining activities. However, the miners' decreased activity is in no way a sign that the rise of blockchain technology has slowed down. The miners' behaviors are largely guided by the market price of ether, as their profits come from the exchange value towards fiat. Mining machines and pools shutting down doesn't mean anything but just the price drop.



Meanwhile, we see the makers not leaving the game but continuing to build, from which we know spring is yet to come. The chart below points out signs of Ethereum's continuous growth. Here we see that while the price of ETH dropped during the last quarter, the number of

successfully deployed smart contracts has grown dramatically. Decentralized applications are tenaciously coming to life under the harsh weather.



These are the traces Ethereum left for us to notice. They are seeds buried underneath the ground in the winter and blossoming into buds right now for the coming spring.



Fig 2 - Mining Difficulty and # of Empty Blocks (during and after the market fall)

A few of the signs here clearly show that the difficulty of blocks has been fluctuating upwards since the beginning of this year, which means that the hashrate that has been contributed by miners is growing again. The miners are coming back, and mining fewer empty blocks. Empty blocks don't carry transactions and can possibly reduce the efficiency of the network, as the transactions submitted will have to wait in the pool until being mined and included. The decrease of empty blocks shows us that the network is healthier, more efficient, and that the miners are stable.

Active contributors in the Ethereum community know that the price of ETH is not the ultimate indicator of the network's health. We are still in the early days of blockchain technology and we see the developers, promoters, and entrepreneurs moving forward regardless of the weather. They are the pioneers of a new era, cultivating the field and clearing the ground for generations to come.

> -Danning @sui414 aleth.io



Beyond Critical Mass

By Dan Shields, Community Steward

As a community steward in the <u>Colorado Blockchain</u> community over this "crypto winter," I have seen a distinct change in who is engaged and why. This time last year, there was a large number of hype driven speculators that were primarily interested in how to identify prime ICOs and trading analysis strategies. Over 2018, the majority of those members have mostly lost interest and have become absent online and from meetups.

But our community has not slowed down. I have seen a steady and growing base of individuals deeply interested in the underlying technology and the possibilities that decentralized systems enable us to join. They are not burned out – on the contrary – they are more active and more excited than ever before. What's more is that we are reaching a critical mass of skilled blockchain developers that have the tool sets to forge these ideas into reality. BUIDLing in our community is at an all time high - and everywhere I look I see projects becoming more robust and starting to showcase products and services ready for the mainstream adoption.

With ETHDenver, a significant increase in the BUIDLer community population is inevitability inbound. With that fresh energy, a new wave of ideas and projects will take flight while existing projects experience a push that in existing projects will now take them to market. Everywhere I look, budding heads of seeds sown this year are just about to blossom... crypto spring is near!

> –Dan <u>@NukeManDan</u>

Melting Snow

By Mark Beylin, CEO at The Bounties Network

When I first stumbled into the Ethereum developer ecosystem at the beginning of 2016, I was wide-eyed and dreaming about the possibilities. I was excited about the potential network effects of applications (and not just users) that a <u>smart contract platform like Ethereum</u> could support. I felt confident that Ethereum was attracting some of the brightest minds to work on the project—whether formally at the foundation, or by building on or adjacent to the Ethereum blockchain. There's a certain smell you'll notice during the spring, just after it rains, when you can tell the earth is blooming. There's an excitement you get, when you imagine the possibilities that green grass will afford you in the coming seasons.

Then we had a hot summer. A REALLY hot summer. A lot of people made lots of money and stopped working hard, which allowed newer developers to step up and take charge. As with most summer nights, ours were certainly full of dancing and music—bull market Devcon was overflowing with boat parties and loud cocktail hours. At times we had to step back and laugh at how far it had gone—what started as ostentatious turned distasteful as people continued accumulating vast sums of wealth from volatile crypto markets and spending it on anything they could imagine.

After that, we went into the fall season—a cooling of the euphoria that had begun to define our ecosystem, and the resurgence of #buidl, creating a cultural movement around makers. This was my comfort zone, a time I personally felt quite free to explore new ideas and to experiment wildly. The Ethereum ecosystem saw a surge in collaboration, as teams realized they could work together on mutually beneficial standards and open-source components. Bear market Devcon was WAY better than bull market Devcon.

Then, winter hit us in full force. Changing conditions began impacting how teams allocated capital. We became hyper-critical: of ourselves, of our peers, and of the ecosystem as a whole. We started re-evaluating what was really working, and what activities only appeared valuable. We started thinking critically about how we can re-anchor our perspectives in the real world: a world that faces constraints on capital, a world that requires teams to sustain themselves through value creation and capture, a world that forces organizations to be clear about who they are building for, and why.

And isn't that a good thing?

Maybe it's just my Canadian joie de vivre, but the cold has been refreshing. While bull market Ethereum critics were mostly just maximalists of other coins, bear market critics are those who are actually working on Ethereum and understand its most glaring imperfections. Healthy and intelligent criticism is valuable, and the community has begun filling its own vacuum of formidable critics. We've stopped looking for reasons to be euphoric.

So how do I know that spring is coming? Because I can smell the rain. The seedlings that were planted last bull market and have made it through the rough winds of winter are beginning to germinate. I no longer worry about Ethereum, because I know that the ecosystem is functioning in a healthy manner again: with a healthy dose of creativity and birthing of new projects, and an equally healthy dose of cleansing and washing away of projects which never panned out.

Enjoy the melting snow while it lasts. Soon the grass will be green again, and the horse-races will commence once more.

-Mark @MarkBeylin bounties.network



BEAR MARKET DEVCON WAS WAY BETTER THAN BULL MARKET DEVCON.

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Build what you want. **Experiment.** Think way outside the box. Don't do radio plays for television. Find out what this new medium is really going to be all about.



The Art of Developer Maintenance

By Chris Ward, Technical Content Lead at Kauri

If you came to crypto and the blockchain space to speculate and make money, then the past months have been a deep, dark winter. If the technology and promise of an alternative to centralized power and infrastructure attracted you, then signs of spring lurk beneath the dark veil of winter. Spring is a time of renewed efforts and growth, of starting afresh, maybe with newer generations leading the charge.

I have worked across many developer-focused projects, and a sign of maturity is when a project also starts to care that people can understand what they have spent time and resources creating.

A growing number of projects in our ecosystem have started caring about developer experience and onboarding and are actively doing something about it. Even during the darkest days of the crypto winter, projects and companies continued to hire technical writers, developer advocates, support staff and usability experts, and this continues today. We have more openings in these roles than qualified people available for them, a gap that Kauri (amongst others) is still looking to fill.

I feel that continuing this trend is an essential step in driving adoption of dapps and blockchain-based projects. If we continue to have projects languishing on GitHub (or worse, not published at all) with non-functioning documentation, complex barriers to entry, and unresponsive (or worse, plain rude) communities, then we have a problem on our hands. If developers can't understand what we're creating, then they won't build anything, or at most, build shoddy applications that users dislike and give up using.

To keep this positive start moving forward, we need to continue the trend of caring that our projects work, are understandable, and well maintained. The open source software world has decades of practical experience we can learn from, information and experts aplenty are clicks away. We also need to take a look at ourselves and take a step back from our bubble when communicating with people new and unfamiliar to the ecosystem. We may be creating the latest and greatest protocol or platform, but so what. Explain to people why this is useful to them, and why they should care, and maybe developers (and fundamentally end-users) will pay attention.

This first step is easier than you might think, and hopefully, you asked what problem you were trying to solve a long time ago. If you're creating a solution

without a problem, maybe it's time to focus your efforts elsewhere. When you have figured out what problem you are solving, think about the people or use case it helps and talk about your project in those contexts. It may be that you focus on one use case, or industry segment at a time, and that's OK, it's how many successful engineering projects began. I hate to disappoint you, but you can't do everything at once, no matter how awesome you are.

Whether through necessity or maturity, our ecosystem has begun this crucial phase, and this to me is the surest sign that spring is coming. <u>Hype cycles</u> collapsing are not always a bad thing. Often they are the time when people start to focus on real work, instead of pure experimentation and marketing fodder.

Ladies, Gentlemen, and all in-between, we have lost friends on the way, but we're going to come back stronger, wiser, and prepared. Let's continue the efforts already begun and make the forthcoming spring glorious, full of life, and hopefully, welcome a lot more new friends along the way.

PS. Myself and the Kauri team are always open to discuss the subjects of developer experience and relations, documentation, and onboarding with anyone. Send me an email to chris.ward@consensys.net, or tweet me @ chrischinch, and I'll be happy to hear from you.

-Chris <u>@ChrisChinch</u> <u>kauri.io</u>



Decentralization of What?

By Micah Dameron, author of The Beige Paper

Buzzwords, Buzzwords Everywhere

Buzzwords have a way of gathering mobs without unifying minds, and the buzzword decentralization has been more guilty of that than most. Over the past year I've seen ideological fellows of all types claiming decentralization as the solution to any number of stated problems, without being able to state exactly how it will solve anything, or what they plan to do to implement such a solution.

If we wanted to compare decentralization to a tapestry, we might say we're still in the threading stage. Perhaps what we are constructing will contain the blueprint for real, global infrastructure. Charlatans and demagogues claim decentralization for their own and raise millions of dollars for themselves without any tenable plans to implement it. Many people want to centralize power in their own group and attempt to plunder the power of a perceivably, at least to them, stronger group. But this is not decentralization. You will not find decentralization in the edicts of law, or the "egalitarian" dictates of an administrator.

As long as decentralization needs to be dictated into existence, it is not decentralization. Then how do we get it? It has to emerge.

Unblocking the Vision of Decentralization

Some desired properties would come into existence of their own accord, if only the associated parties could manage to unblock them. Ant colonies are a great example. Each particular colony emerges according to a unique combination of abilities, needs, and other factors on behalf of both the ants and the terrain around them in which they need to survive. When ants build with dirt, an ant-hill might emerge. This is cool, and emergent. But if they make their home inside a tree stump, you might not see any hills.

Humans have neatly emerging structures too, but our modes of reaching desired outcomes aren't hard-wired as they are with ants. In large networks of buyers and sellers, with the market as the most visible intermediary between the two, it would be absurd to expect or attempt to build the same level of trust that ants of the same colony can smell on each other's pheromone signals. Cryptography comes to the rescue of humanity's ant-like aspirations by using computers and conflating messages so that they don't make sense to anyone but the intended recipients. One might say that the messages smell bad, that is, they smell uninteresting, to anyone but those with the capability to decode their true meaning. A successfully implemented cryptographic global economy will consist of participants that reveal only as much about themselves as is necessary for all parties in a transaction to give assent to its execution. Cryptography levels the playing field of human social systems, making all participants temporary strangers that must prove themselves, thereby re-establishing something resembling a local-market economy with requirements for trust and reputation along more secure lines than an international economy, with manifold centralized inputs, can afford.

Rather than sending a message and relying on the clarity of thought and language to communicate it (clarity of thought and language typically being dubious assumptions to rely on), one sends a message and relies on the obfuscation of the message to communicate the real meaning, or at least, to generate a frame for the real meaning. Otherwise the assumption is that messages sent cryptographically are uncertain and need to be clarified. The converse, and somewhat foolhardy, assumption is that messages sent normally can be certain and plainly evident, without the need for restatement and consensus building.

As it happens, when you decentralize and obfuscate messages enough, as global networks of computers allow us to do, you can create messages that are so robust when interpreted correctly that the very aliveness of the network guarantees their integrity. Just as sure as living red blood cells demonstrate the aliveness of the body they're in, it's possible to make cryptographically secure messages a requirement, as well as a primary signal, for the aliveness of a network they're in.

The decentralized economy teaches us that people can interact predictably, based on their purely subjective interest to follow a clear set of short rules that allow them to automatically get along. When everyone agrees on the rules, basing their actions on such consent, experience can be ordered in a way that is broadly constructive for an unprecedentedly large number of people and societies in the world.



–Micah @micahdameron The Beige Paper Where are you in the ecosystem? How's the weather out there?



