



12

**Thoughts on the
future of Web3**

Owen Barnes

VERSION

1.0.0


EthBrno - November 2022










This is a Mega Talk!



The Full Story of MrBeast

 Colin and Samir ✓
1.03M subscribers

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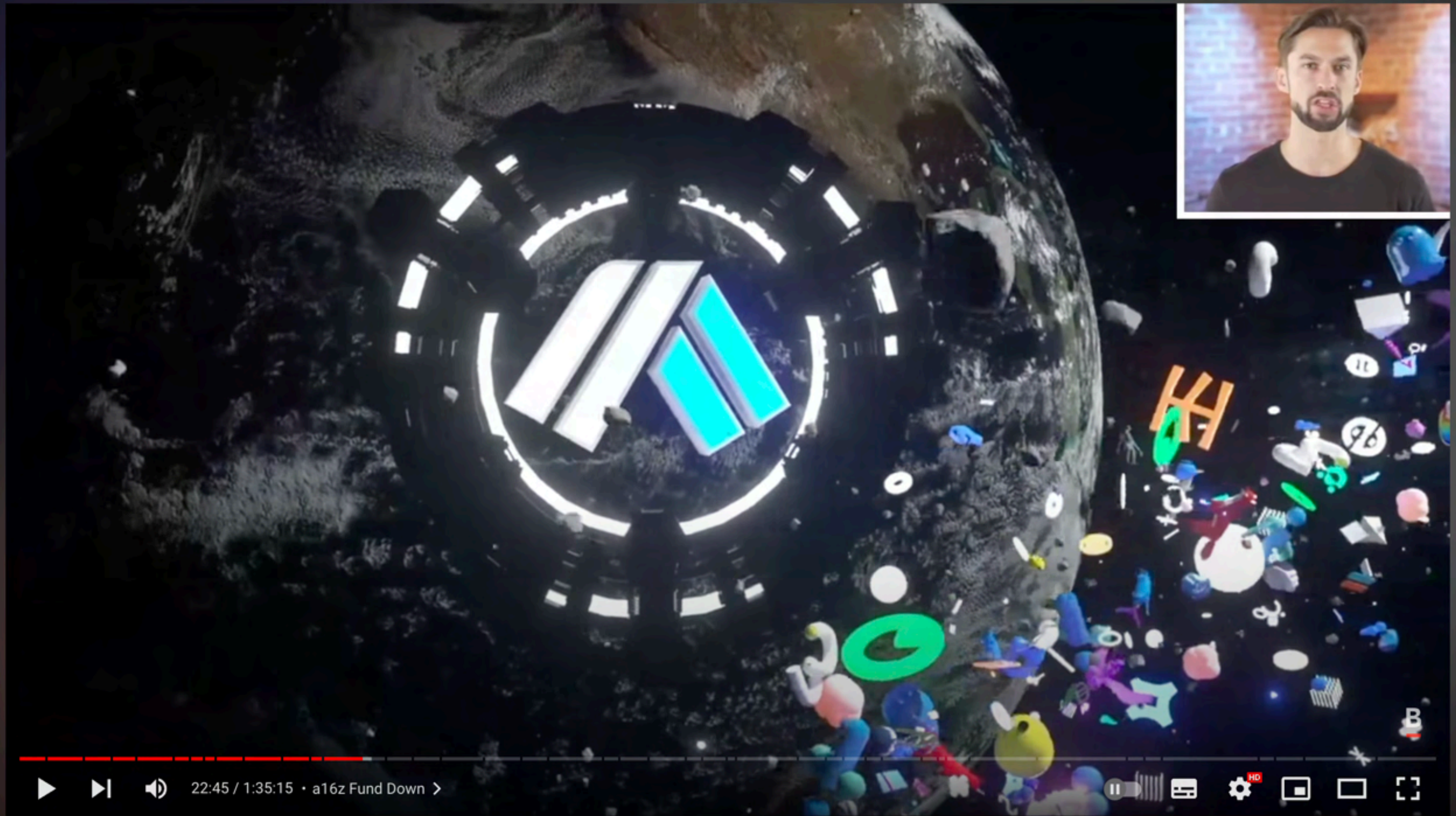


**Happy to take a few
questions at the end of
each section**

1

**We need to think
beyond Layer 2s**

“Use a Layer 2”



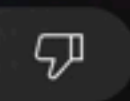
NEW Apple NFT Policy | ETH is Ultra Sound Money | Lord of the Rings NFTs | Elon Twitter | FTX Stable



Bankless Shows
189K subscribers

Subscribed

368



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REASON 1

Security

Risk Analysis

#	NAME	STATE VALIDATION	DATA AVAILABILITY	UPGRADEABILITY	SEQUENCER FAILURE	VALIDATOR FAILURE
1	Arbitrum One	Fraud proofs (INT)	On chain	Yes	Transact using L1	No mechanism
2	Optimism	In development	On chain	Yes	Transact using L1	No mechanism
3	dYdX	ZK proofs (ST)	On chain	Yes	Force trade/exit to L1	Escape hatch (MP)
4	Loopring	ZK proofs (SN)	On chain	Yes	Force exit to L1	Escape hatch (MP)
5	Metis Andromeda	In development	Optimistic (MEMO)	Yes	Transact using L1	No mechanism
6	Immutable X	ZK proofs (ST)	External (DAC)	14 days delay	Force exit to L1	Escape hatch (MP)
7	zkSync	ZK proofs (SN)	On chain	21d or no delay	Force exit to L1	Escape hatch (ZK)
8	ZKSpace	ZK proofs (SN)	On chain	8 days delay	Force exit to L1	Escape hatch (ZK)
9	Boba Network	In development	On chain	Yes	Transact using L1	No mechanism
10	rhino.fi	ZK proofs (ST)	External (DAC)	14 days delay	Force exit to L1	Escape hatch (MP)
11	Sorare	ZK proofs (ST)	External (DAC)	14 days delay	Force exit to L1	Escape hatch (MP)
12	Aztec Connect	ZK proofs (SN)	On chain	Yes	Propose blocks (ZK)	Propose blocks (ZK)
13	ApeX	ZK proofs (ST)	External	Yes	Force trade/exit to L1	Escape hatch (MP)
14	Arbitrum Nova	Fraud proofs (INT)	External (DAC)	Yes	Transact using L1	No mechanism
15	OMG Network	Exits only	External	Yes	Exit to L1	Escape hatch (?)

l2beat.com/scaling/risk

PROPERTY	UPGRADEABILITY	SEQUENCER FAILURE	VALIDATOR FAILURE
	Yes	Transact using L1	No mechanism
	Yes	Transact using L1	If the whitelisted validator goes down, no activity including withdrawals can happen. Funds will be frozen.
	Yes	Force trade/exit	
	Yes	Force exit to L1	Escape hatch (MP)
MO)	Yes	Transact using L1	No mechanism
	14 days delay	Force exit to L1	Escape hatch (MP)
	21d or no delay	Force exit to L1	Escape hatch (ZK)
	8 days delay	Force exit to L1	Escape hatch (ZK)

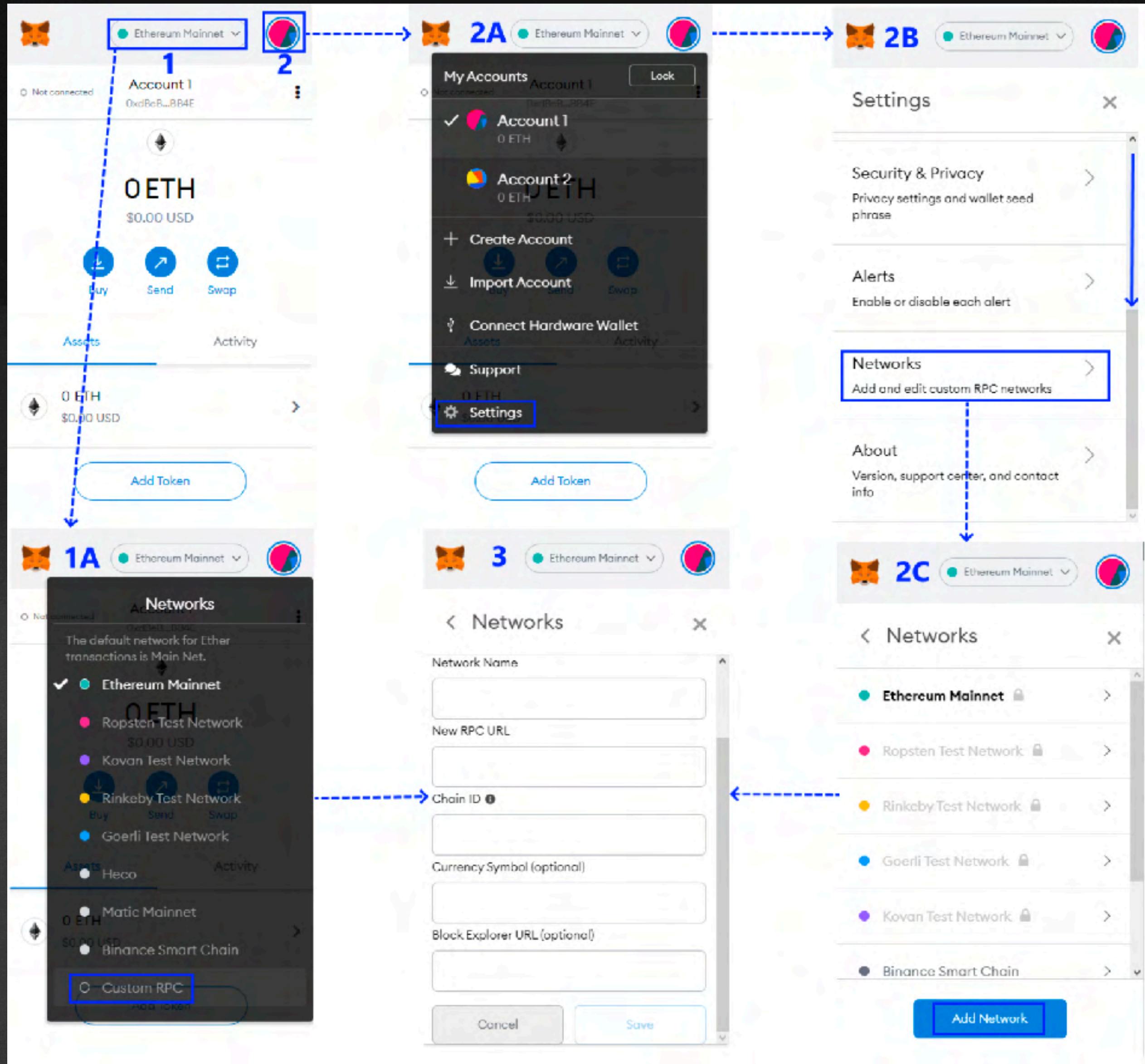


QUESTION

**If you sold your house, which L2
would you store the money on?**

REASON 2

Horrible UX



REASON 3

**Fragmented
liquidity**

#	NAME	TVL	BREAKDOWN	7D CHANGE	MARKET SHARE	PURPOSE	TECHNOLOGY
1	Arbitrum One	\$2.68B		- 1.68%	50.89%	Universal	Optimistic Rollup
2	Optimism	\$1.62B		- 0.92%	30.87%	Universal	Optimistic Rollup
3	dYdX	\$379M		- 1.51%	7.19%	Exchange	ZK Rollup
4	Loopring	\$143M		- 12.74%	2.72%	Tokens, NFTs, AMM	ZK Rollup
5	Metis Andromeda	\$127M		- 6.66%	2.43%	Universal	Optimistic Chain
6	Immutable X	\$97.17M		- 60.32%	1.84%	NFT, Exchange	Validium
7	zkSync	\$63.36M		- 0.60%	1.20%	Tokens, NFTs	ZK Rollup
8	ZKSpace	\$41.96M		- 0.50%	0.80%	Tokens, NFTs, AMM	ZK Rollup
9	Boba Network	\$29.12M		- 5.67%	0.55%	Universal	Optimistic Rollup
10	Sorare	\$24.50M		- 2.67%	0.46%	NFT, Exchange	Validium
11	rhino.fi	\$23.31M		- 6.25%	0.44%	Exchange	Validium
12	Aztec Connect	\$8.77M		- 3.14%	0.17%	Private DeFi	ZK Rollup
13	ApeX	\$5.58M		- 9.43%	0.11%	Exchange	Validium
14	Arbitrum Nova	\$5.05M		- 11.18%	0.10%	Universal	Optimistic Chain
15	StarkNet	\$3.17M		- 12.92%	0.06%	Universal	ZK Rollup
16	Aztec	\$3.11M		- 1.01%	0.06%	Private payments	ZK Rollup
17	OMG Network	\$3.03M		- 0.00%	0.06%	Payments	Plasma
18	ZKSwap 1.0	\$1.89M		- 0.72%	0.04%	Payments, AMM	ZK Rollup
19	Polygon Hermez	\$359K		- 20.37%	0.01%	Payments	ZK Rollup
20	ZKSwap 2.0	\$243K		- 0.25%	0.00%	Payments, AMM	ZK Rollup
21	Layer2.Finance	\$169K		- 11.03%	0.00%	DeFi aggregation	Optimistic Rollup
22	Myria	\$75.20K		- 11.84%	0.00%	NFT, Exchange	Validium
23	Gluon	\$63.85K		- 104.30%	0.00%	Exchange	Plasma
24	Layer2.Finance-zk	\$3.90K		- 25.58%	0.00%	DeFi protocols	Validium
25	Fuel v1	\$7.98		- 0.37%	0.00%	Payments	Optimistic Rollup

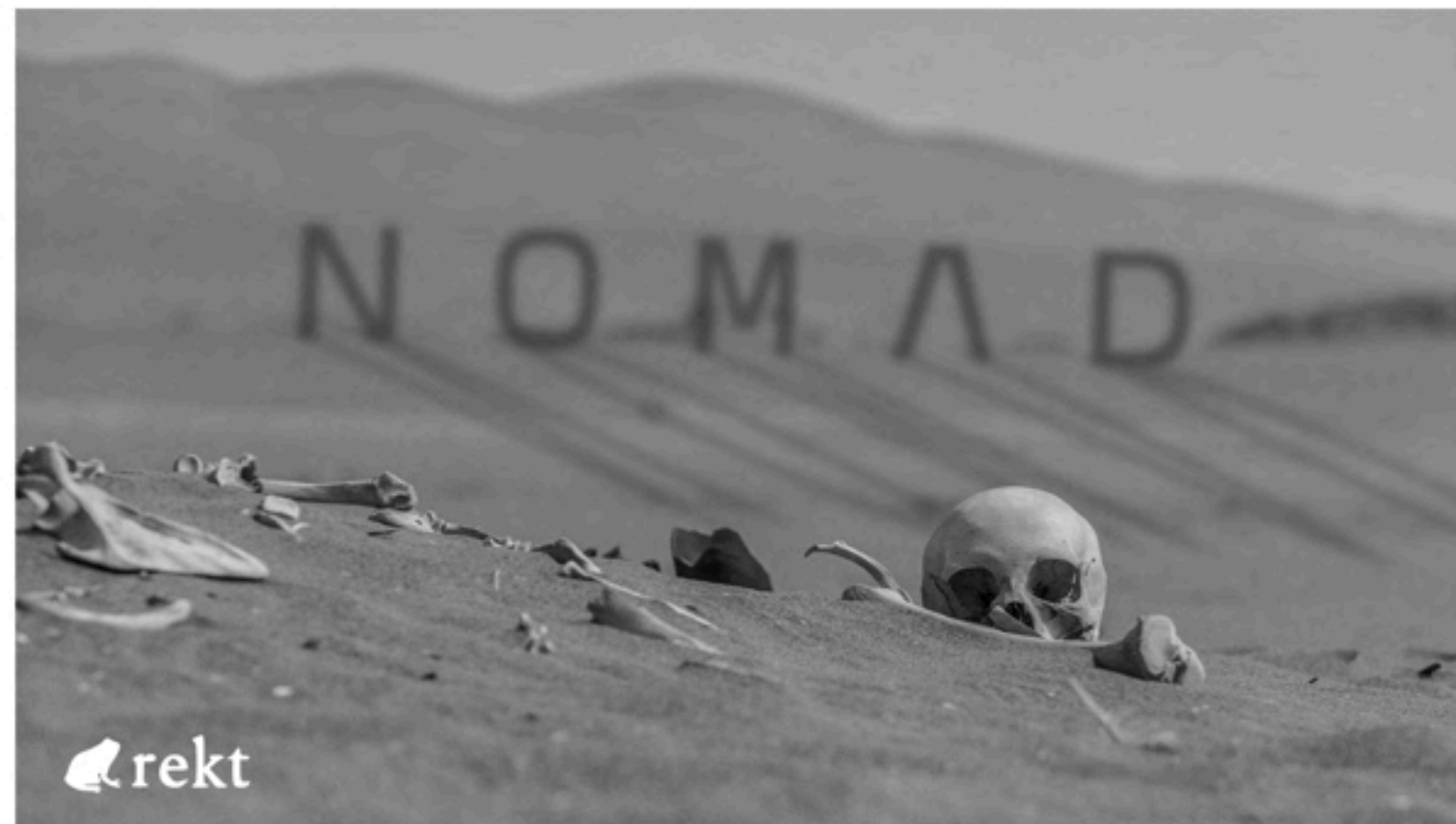
l2beat.com/scaling/tvl



NOMAD BRIDGE - REKT

Tuesday, August 2, 2022
Nomad Bridge - REKT

read this article also in:
en - es - ru - tr - zh



The vultures had a busy night.

Nomad Bridge has been torn apart, with \$190M of liquidity drained in a savage attack lasting two and a half hours.

This is the 100th incident to make it onto the rekt.news [leaderboard](#).

Staying true to DeFi principles, this hack was permissionless - anyone



MetaMask News

 Follow @MetaMask

MetaMask Launches Bridge Aggregator In Dapp To Easily Move Tokens Across Chains

MetaMask Bridges (beta) aggregates the best routes with time, cost, and security considerations for a better bridging experience.



MetaMask Bridges, now in Portfolio Dapp

REASON 4

Composability



academy.shrimpy.io/post/what-is-defi-composability-an-introduction-to-money-legos



Search...

K

Introduction

Vision

Getting Started

PROTOCOL

Overview

Cross-Chain Messaging

Optimistic Verification

Synapse Bridge >

Synapse Chain

GUIDES

Bridge Assets

Provide Liquidity

Swap Stables

MILESTONES & GOVERNANCE

Milestones

Trade SYN

Governance Initiatives

DEVELOPERS



Powered By GitBook

Contract Addresses

Addresses for all relevant Synapse Protocol contracts.

Due to the number of deployments & contracts across multiple chains, this is not currently an exhaustive list.

Synapse Protocol contracts & deployment addresses can all be found on [Github](#).

Synapse Token

Chain	Address
Arbitrum	0x080f6aed32fc474dd5717105dba5ea57268f46eb
Aurora	0xd80d8688b02B3FD3afb81cDb124F188B35aD0445
Avalanche	0x1f1E7c893855525b303f99bDF5c3c05Be09ca251
Boba	0xb554A55358fF0382Fb21F0a478C3546d1106Be8c
BSC	0xa4080f1778e59467e905b8d6f72f6e441f9e9484
Cronos	0xFD0F80899983b8D46152aa1717D76cba71a31616
DFK	0x3150051057100055614600000000000000000000

REASON 5

Network Effects



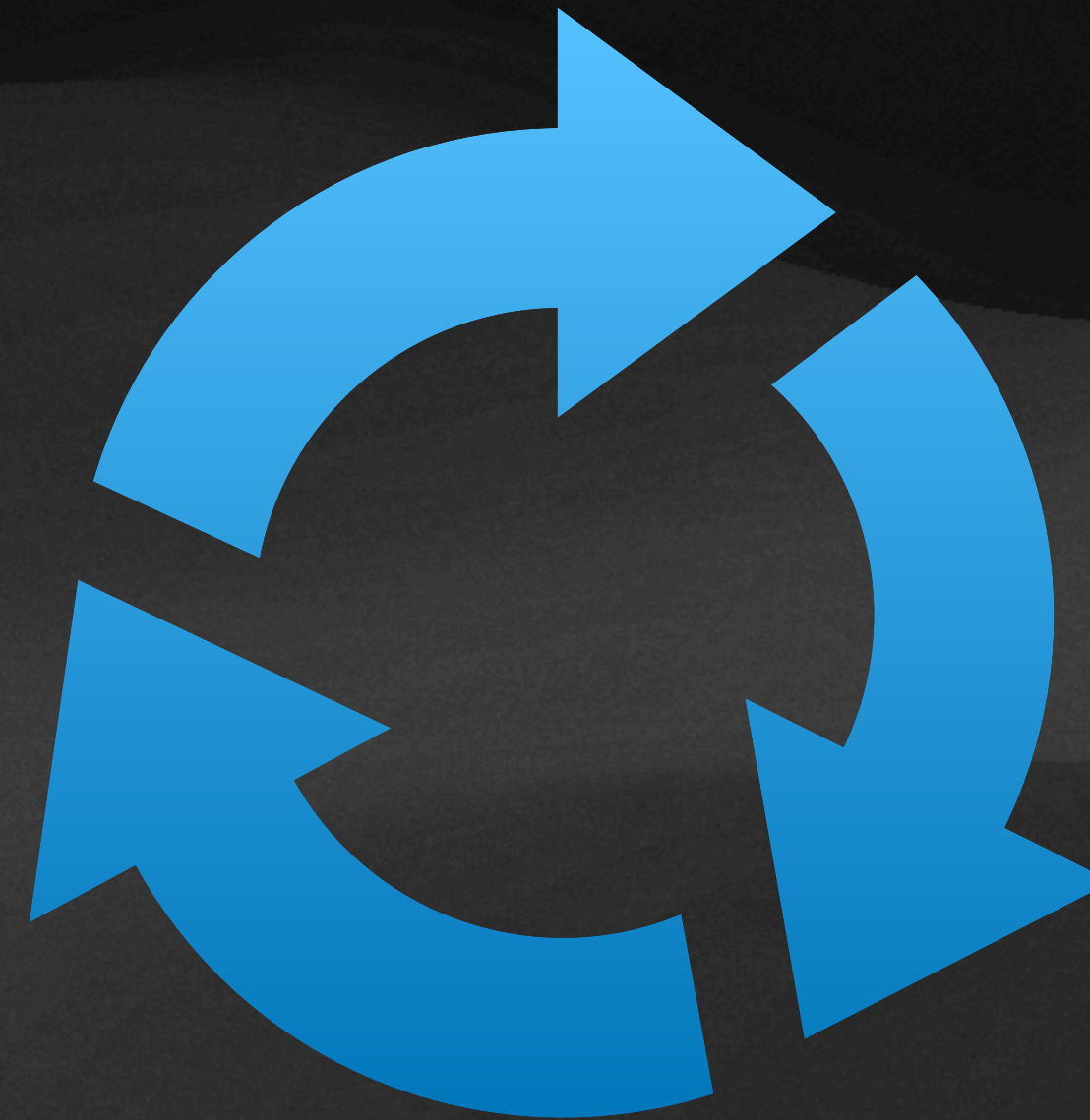
Two-sided marketplaces

More users

**More
composability**

More liquidity

More developers



**Pretty soon we will see a
few winners emerge**



Segment by security

Winners have one job:

DON'T GET HACKED



**Does that mean this whole L2
adventure is a waste of time?**

Not at all



**Many innovations will
feed back into L1**

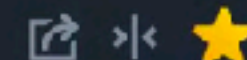
Sharding + State rent

3:27

5G



OPTITRUM



56.51

≈ A\$76.28 +36.46%

High	Vol(1CP)
56.88	5.94M
Low	Vol(USDT)
41.08	292.18M

Line 15m 1h 4h 1d More ▾ Depth



MA EMA BOLL VOL MACD KDJ RSI

Order Book Market History Margin Data Ir

Bid	Ask	0.01 ▾
7.28	56.48 56.50	0.21
25.00	56.47 56.51	84.00
27.37	56.46 56.52	102.34
86.78	56.45 56.53	43.92
26.58	56.44 56.54	8.68
108.49	56.43 56.55	24.39
29.62	56.42 56.56	50.39
161.96	56.41 56.57	17.70



Currency



Alert



Margin

Buy

Sell

2

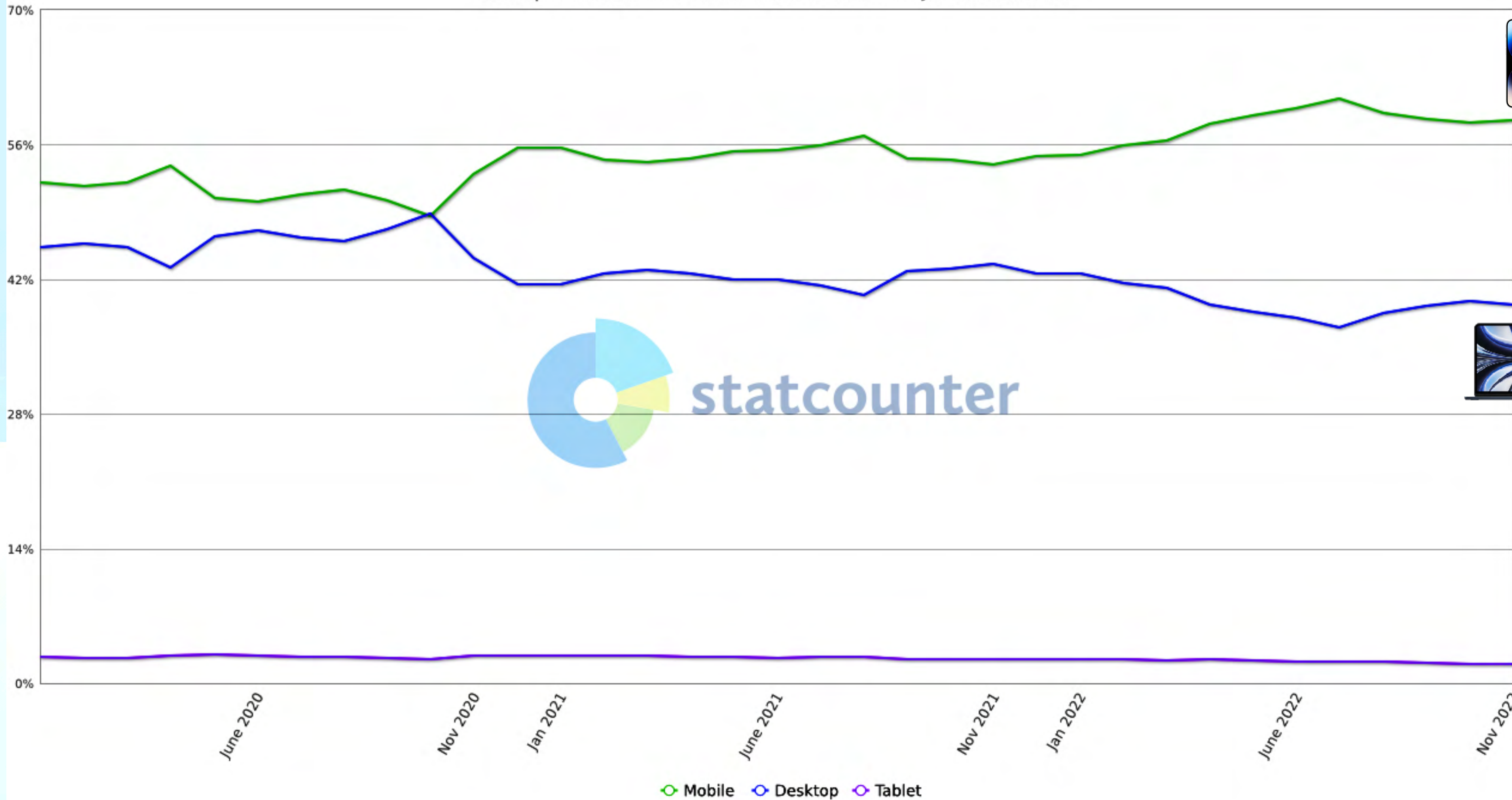
**The next crypto
summer will be...**



Mobile First

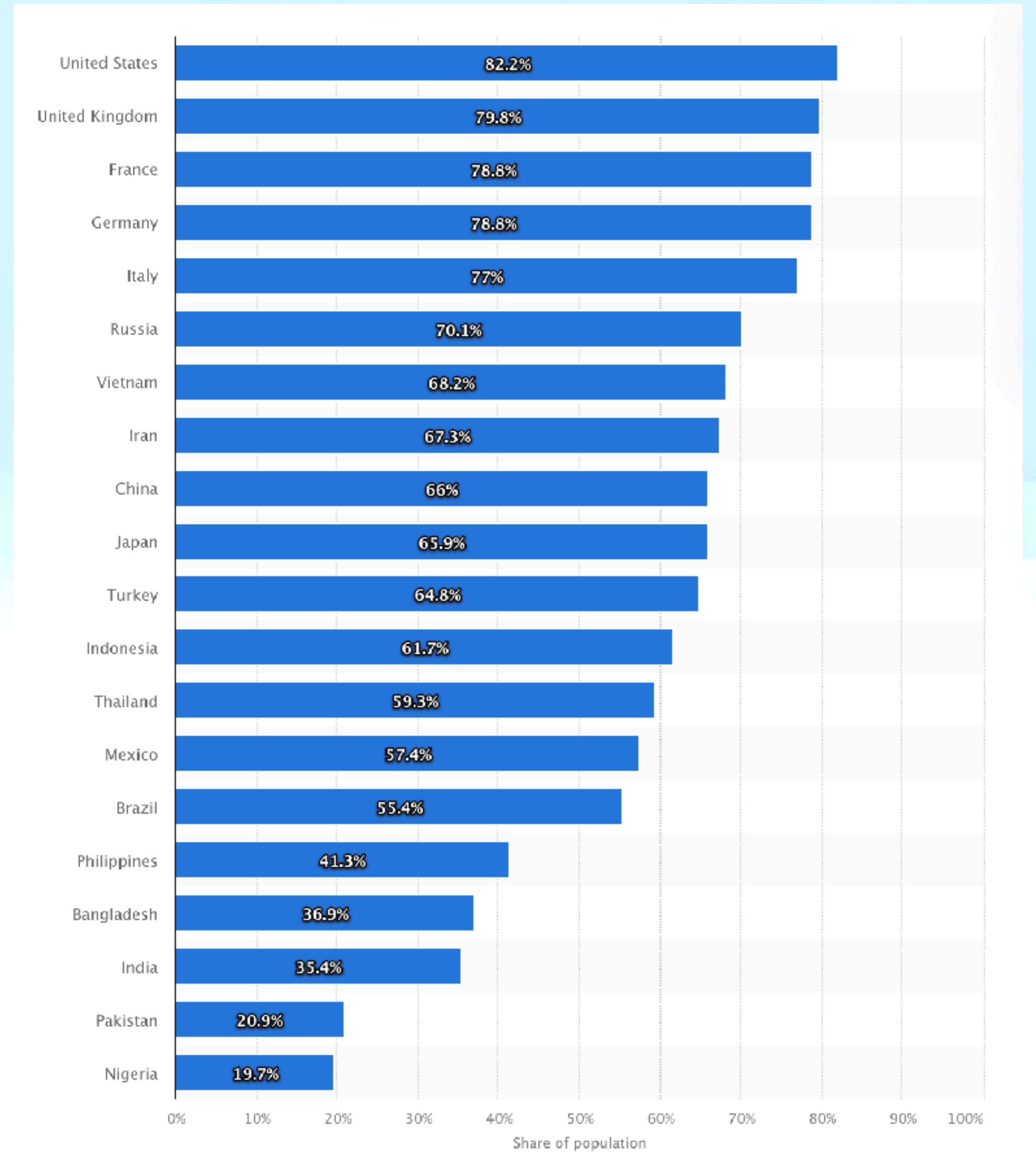
StatCounter Global Stats

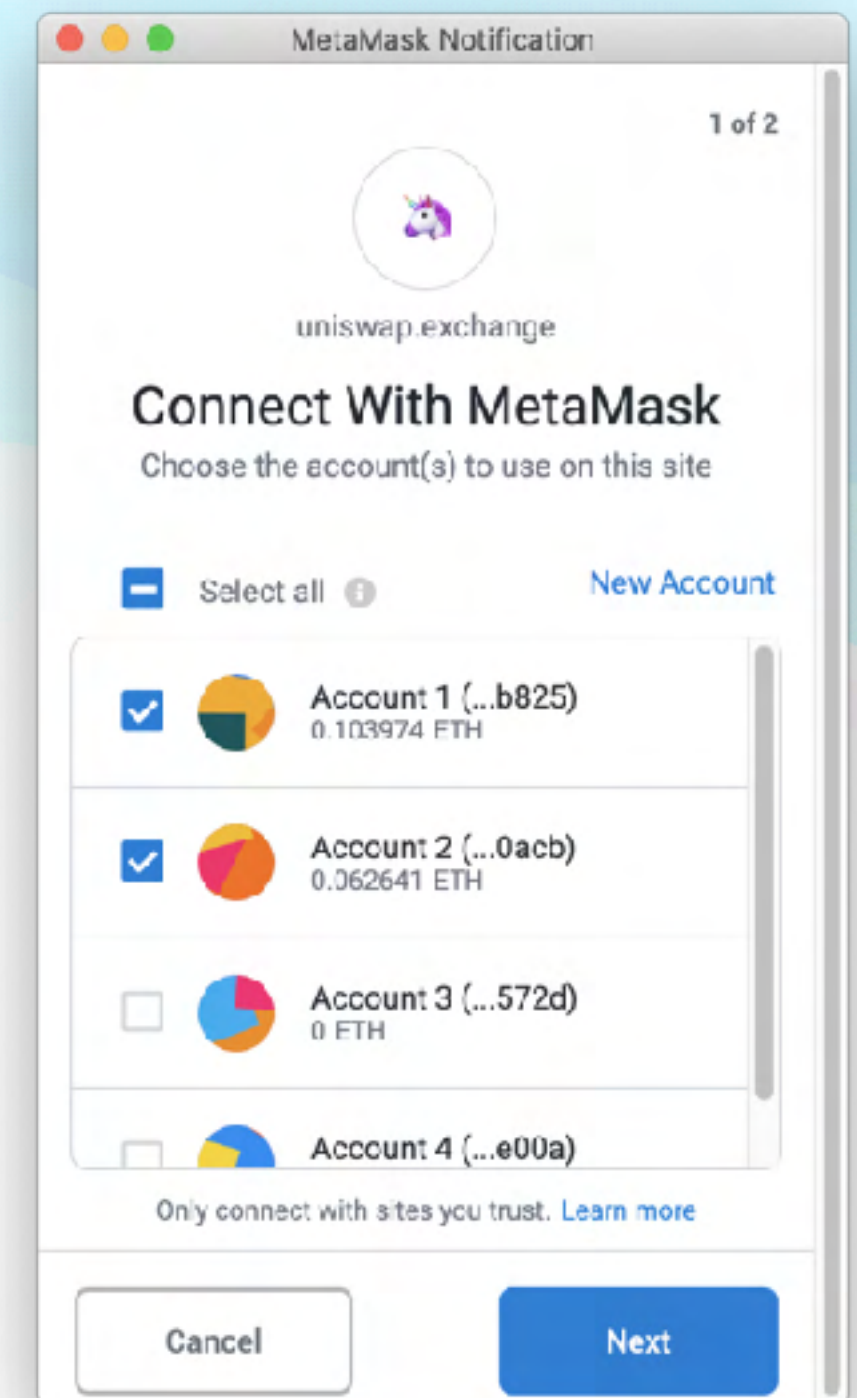
Desktop vs Mobile vs Tablet Market Share Worldwide from Jan 2020 - Nov 2022

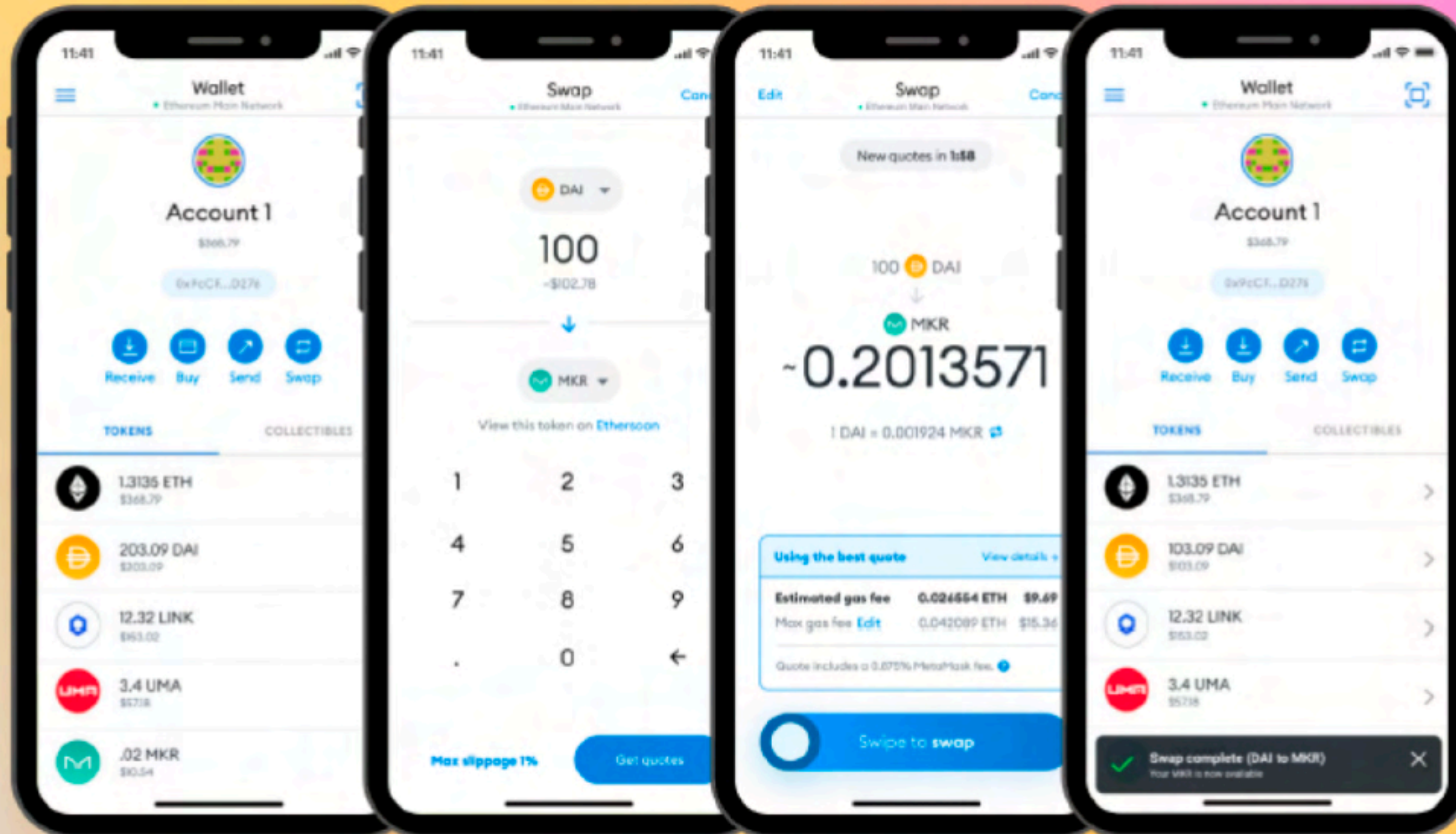


Smartphone penetration

2021









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Menu

Reading

 Apple Restricts Using NFTs to Unlock Content,...

News · NFTs

Apple Restricts Using NFTs to Unlock Content, Features in Apps

Apple also affirms its longstanding policy preventing links to alternate payment methods.

By [Kate Irwin](#)

Oct 24, 2022

3 min read



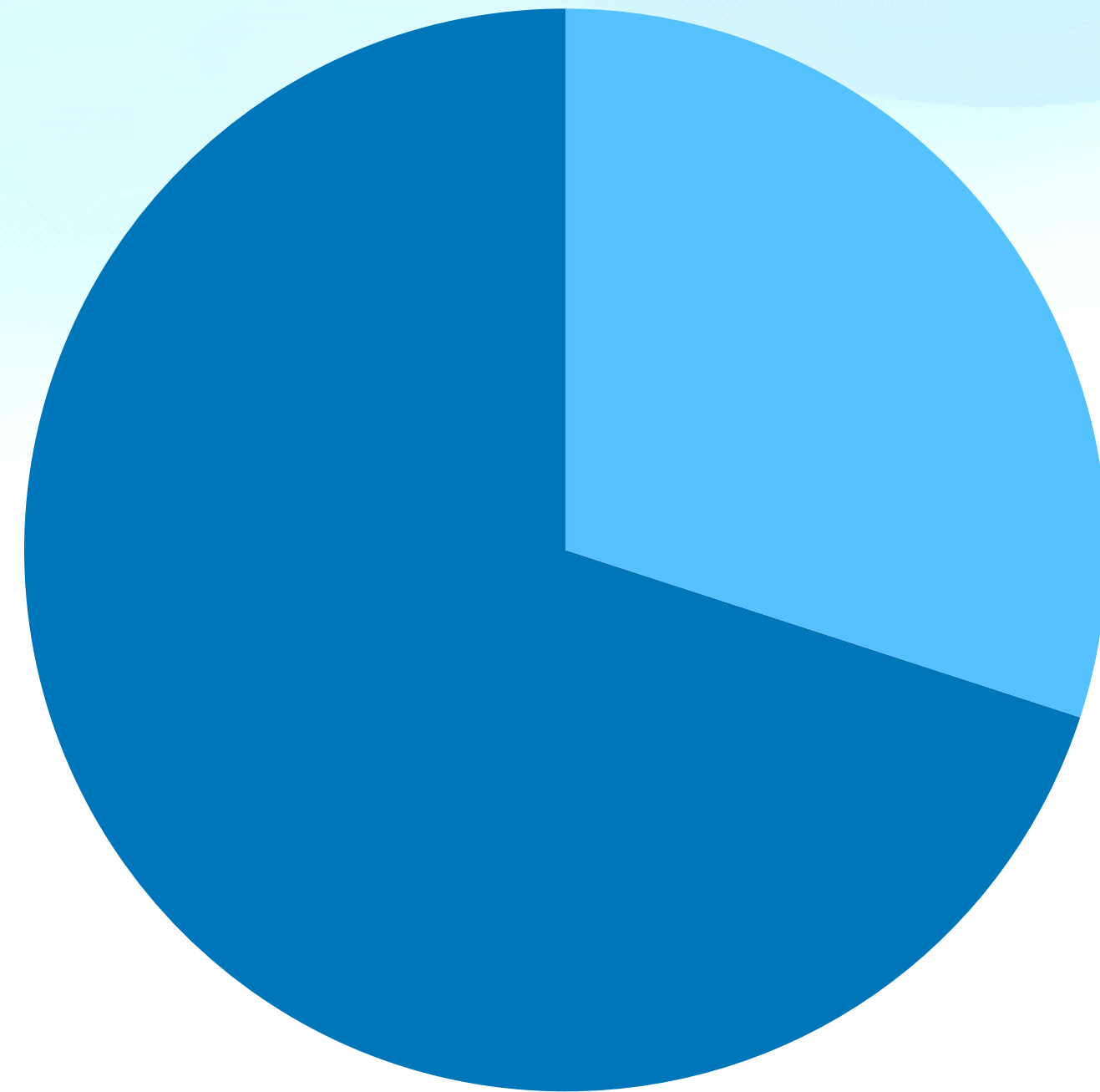
Image: Shutterstock



Search

About

Apple takes a 30% cut

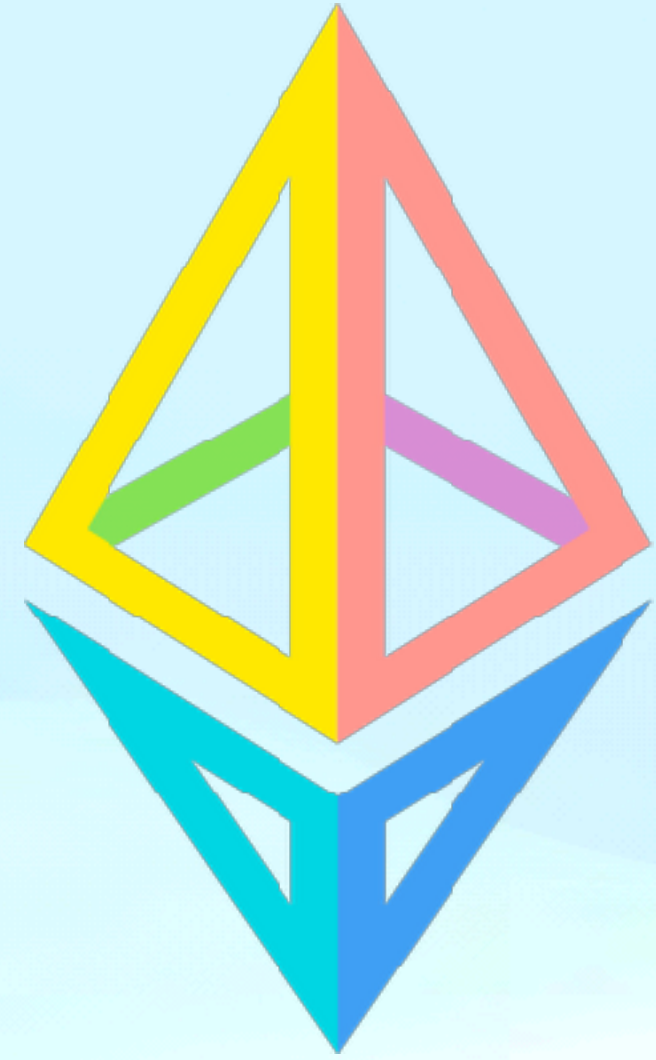


Saga





Two phones

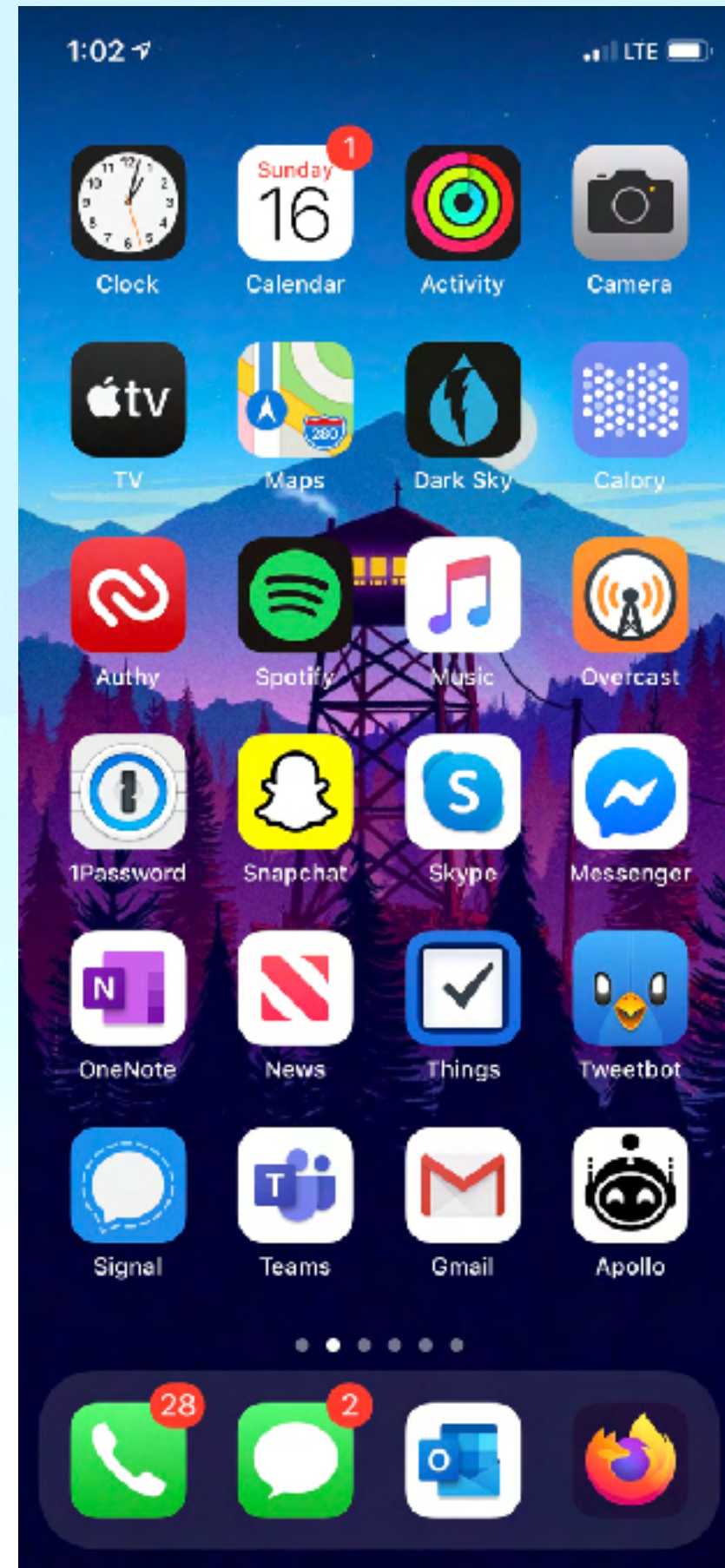


What can we do?



ethosmobile.org

Decentralised App Store



Islands of data



youtube.com/watch?v=uUvfAbidO8c
(link at owenbarnes.com)

**To make people want to use
an Ethereum phone...**

3

Open protocols

“Is crypto over?”

“Will it ever come back?”

We're not done until...

eBay

Airbnb

Twitter

Uber / Lyft

Rightmove / Zillow

Deliveroo / Door Dash

**are replaced with
decentralised
Open Protocols**

TCP/IP

DNS

**Early on, everything was
an Open Protocol**

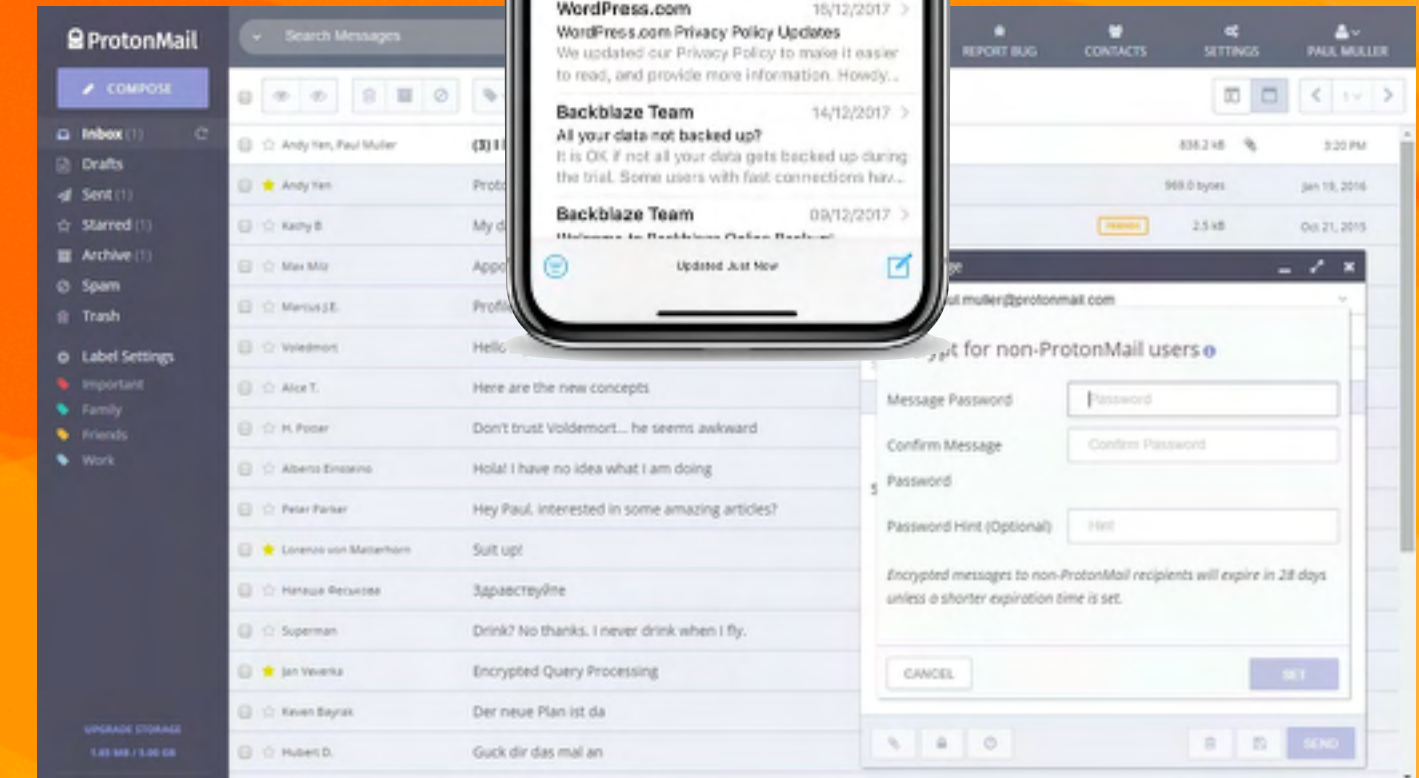
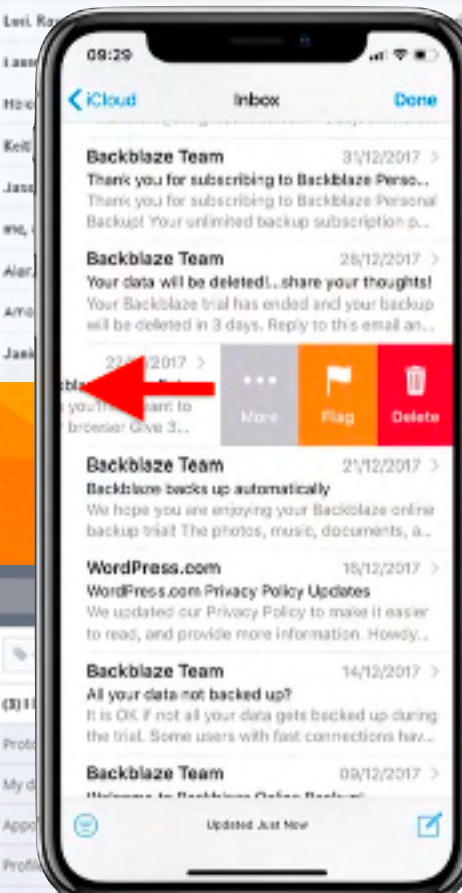
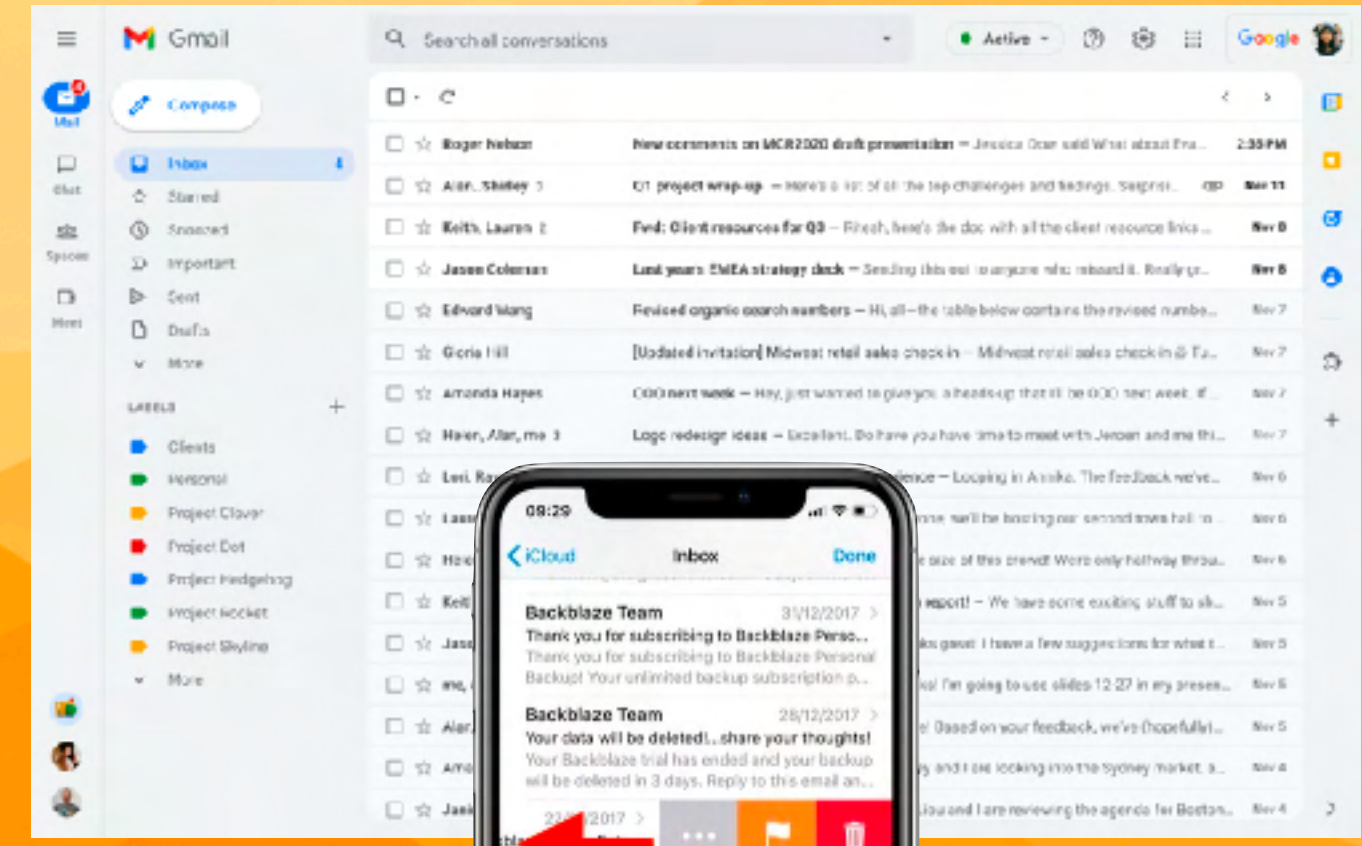
SMTP

IMAP

POP



SMTP
POP
IMAP



Multiple Backends

Multiple Frontends

Multiple interfaces

[DEV GARDEN](#)[APPS](#)[IDEAS](#)[FAQ](#)[CLAIM HANDLE](#)


LENS PROTOCOL

Building a social network is hard.
Lens Protocol makes it **easy**.

[DEVELOPER GARDEN](#)[JOIN DISCORD](#)

FEATURED ON LENS

A selection of the best apps to use on Lens

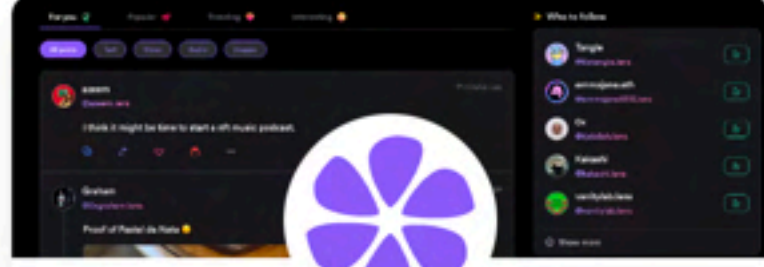


Made by Lens Team Lens Protocol (@lensprotocol)

LENSFRENS

Simple curated page for your lens profiles.

Identity 🇺🇸

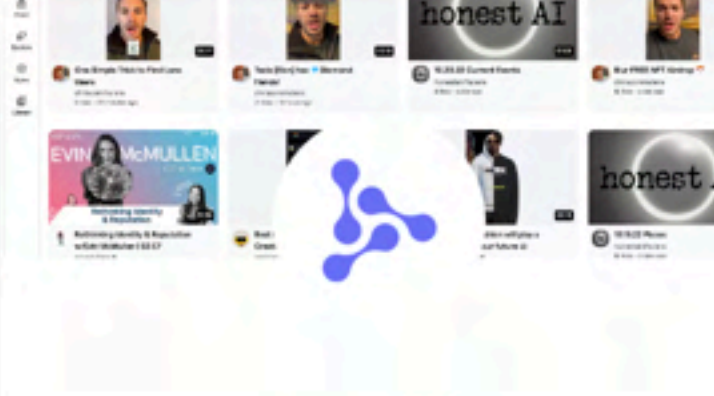


LENSTER

Lenster is a composable, decentralized, and permissionless social media web app built with Lens Protocol 🌱

Text Images Video Image curated Text curated Audio

Social Media ❤️

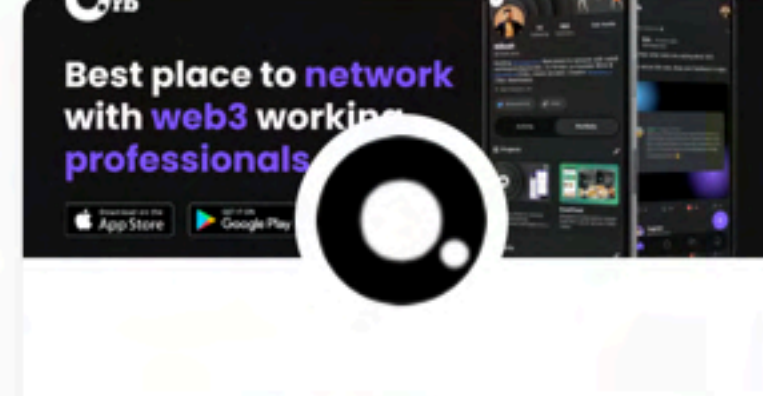


LENSTUBE

Lenstube

Video Audio

Social Media ❤️

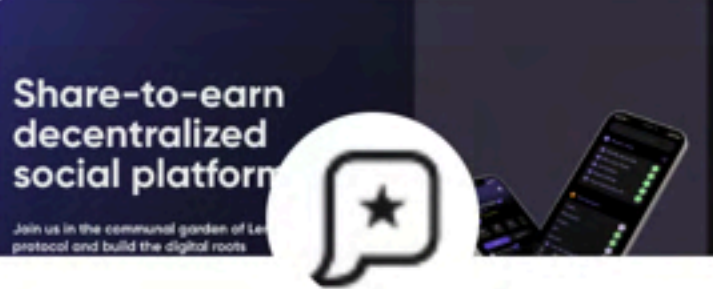


ORB

Decentralized professional social media app with an end-to-end on-chain credibility system; connecting compani...

Data Image curated Text curated

Social Media ❤️




PHAVER

Help us curate interesting stuff online and offline and get rewarded.

Images Text Video Image curated Text curated

Social Media ❤️



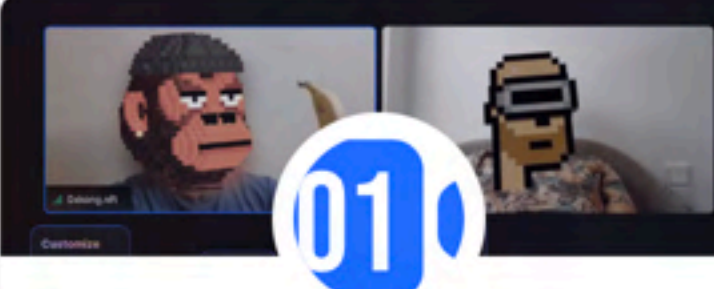
Made by Lens Team

RE:MEME

On-chain meme generator, built on top of Lens Protocol

Images

Social Media ❤️




HUDDLE01

One-click Meetings. Login with Web3, create token-gated spaces, use NFT avatars and decentralized storage.

Video Audio Text

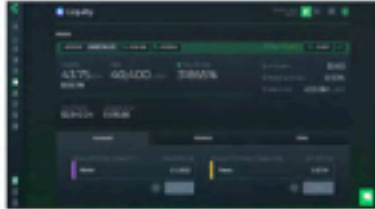

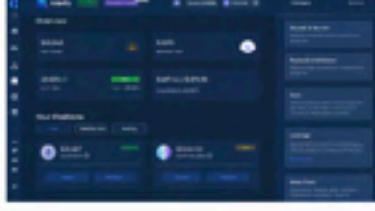
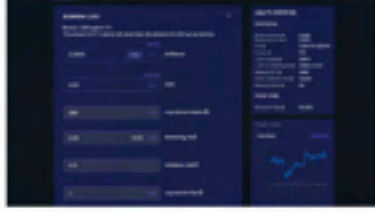

Community Tool 🧑🏻‍🤝‍🧑🏻



BELLO

Lens protocol charts

Analytics 📊

Frontend Operator	Kickback rate
 DeFi Saver	<p>DeFi Saver is an all-in-one dashboard for creating, managing, and tracking DeFi positions across multiple protocols with unique automation options. DeFi Saver provides advanced automated liquidation protection strategies for Liquity Troves.</p> <p>100% Visit</p>
 Liquity.App	<p>We run a trustworthy, reliable and globally distributed frontend for Liquity. We're experienced builders and operators in the web3 ecosystem with a strong community of users and customers that trust us to look after them.</p> <p>99% Visit</p>
 Instadapp	<p>Instadapp is an open source and non-custodial middleware platform for decentralized finance applications.</p> <p>100% Visit</p>
 lud.eth.link [1kx]	<p>Hosted on Arweave + ENS. Use the most decentralised frontend for the most decentralised stablecoin. No ads, no tracking. Dark mode + mobile friendly.</p> <p>95% Visit</p>
 freely.finance	<p>freely.finance is the gateway to interest-free loans using decentralized borrowing protocol Liquity. 0.1% of the kickback will be allocated to improve the freely.finance UI/UX. Please feel free to share any feedback.</p> <p>99.9% Visit</p>

Decentralized rideshare, supercharged

Built and owned by network participants.

JOIN DISCORD 





The Rideshare Protocol

TRIP (The Rideshare Protocol) unlocks the power of web3 to build a new ride-share network - a protocol on the blockchain - owned by drivers and everyone who adds value to the network. In the beginning the web was an open ecosystem, but many of the platforms and markets that emerged originally touted as open and decentralized are now locked-down, walled-gardens controlled by mega corporations. Instead of open platforms, we got monopolies, with a distinct lack of alternative choices across many sectors. To reopen the web, we need open protocols that stay open and a realistic path to migrate millions of users away from centralized platforms to decentralized protocols. The Decentralized Engineering Corporation developed TRIP to fulfill this vision.

BUILT BY  POWERING  Teleport

trip.dev

POWERED BY THE TRIP PROTOCOL

TRIP connects drivers and riders

The Rideshare Protocol (TRIP) is a novel organizational structure that allows drivers, riders, and operators to jointly build a competitive marketplace for ridesharing. TRIP as a decentralized protocol strikes a more favorable balance between competition and cooperation than centralized ridesharing systems while increasing safety, quality, and earnings for all network participants. To overcome the network effects of existing platforms, a coordination mechanism allows participants to orchestrate a migration.



"Whereas most technologies tend to automate workers on the periphery doing menial tasks, blockchains automate away the center. Instead of putting the taxi driver out of a job, blockchain puts Uber out of a job and lets the taxi drivers work with the customer directly."

- Vitalik Buterin

Recommendations

**Dispute
resolution**

Insurance

DMs

Reviews

Client Apps

**Composability +
Open Protocols =
Build horizontally**



Beyond Dapps and Code - WebSummit 2018

youtube.com/watch?v=66M3FyOOzTc

4

**Let's use the blockchain for
what it's actually good for**

:(

**Blockchains are
terrible at most things**

- Not Private**
- Costly**
- Use more power**
- Complicated**

So why use one?

**Permissionless
Censorship Resistant**

**Perfect for hostile
environments**





Neutrality

A large commercial airplane is the central focus, parked on a tarmac during a golden sunset. The sky is a mix of orange and yellow, casting a warm glow over the scene. The airplane is white with a dark stripe along the fuselage. In the foreground, several white ground support vehicles (GSVs) are visible, including a large tug and smaller utility vehicles. A worker in a high-visibility vest and hard hat stands near one of the vehicles. To the right, a blue ground support structure is partially visible. The overall scene depicts a busy airport tarmac at the end of the day.

Airlines

Airport

**Support
Companies**

Why not run it on

aws





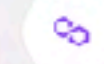


Transparency



Beta

Explore Exhibitions



Until every expression
of human creativity
builds a better world

Explore

Create



☆ High Impact

ManifestGud #12

@gioelecerati

DoinGud.com



CANCER RESEARCH UK

Together we will beat cancer

Search



Donate

About cancer

Get involved

Our research

Funding for researchers

Shop

About us



Celebrating 20 years of Cancer Research UK

Together, we've come so far. And we will go much further.

Monthly

Single

£6

£15

£30

or

£ Other amount

Donate

Fundraise. Pledge. Volunteer. Donate.

Play your part



Get involved and make a difference

Cancer is relentless. But so are we. Whether you fundraise, pledge to leave a gift in your will or donate. Every part supports

9. Employees and Trustees

(a) Employees

	Group 2022 £m	Group 2021 £m	Charity 2022 £m	Charity 2021 £m
Wages and salaries*	116.4	112.2	92.2	90.0
Social security costs	11.0	10.4	8.8	8.3
Other pension costs	12.0	10.3	7.3	7.1
Other staff costs	0.6	0.7	0.5	0.6
	140.0	133.6	108.8	106.0

*Wages and salaries include termination payments of £0.9m (2021: £1.3m)

The average headcount of employees, analysed by function, was:

	Group 2022 No.	Group 2021 No.	Charity 2022 No.	Charity 2021 No.
Charitable activities	1,060	1,076	629	648
Fundraising and trading	2,674	2,703	2,674	2,703
Support services	578	607	494	522
	4,312	4,386	3,797	3,873

In addition to the scientists employed, over 3,000 scientists, technicians and other staff engaged in cancer research were supported by grants made by the Group (2021: over 3,200).

The number of employees whose remuneration fell within the following bands is set out below:

	Group 2022 No.	Group 2021 No.
£60,001 – £70,000	87	97
£70,001 – £80,000	75	43
£80,001 – £90,000	20	11
£90,001 – £100,000	15	15
£100,001 – £110,000	10	9
£110,001 – £120,000	5	6
£120,001 – £130,000	5	3
£130,001 – £140,000	2	5
£140,001 – £150,000	2	1
£150,001 – £160,000	2	2
£160,001 – £170,000	1	1
£170,001 – £180,000	1	2
£190,001 – £200,000	3	1
£200,001 – £210,000	-	1
£210,001 – £220,000	1	1
£230,001 – £240,000	1	-
£240,001 – £250,000	1	-
£250,001 – £260,000		1
	229	199

34

The figures used to calculate the bandings above are inclusive of wages, salaries and benefits but exclusive of social security costs and employer pension contributions.

The highest paid member of staff is the Chief Executive Officer (2021: Director of Global Philanthropy).

PREDICTION

One day all charities and public institutions will run on the blockchain

**Private
Individual**

**completely
private**

VS

**Public
Institution**

**completely
transparent**



Staking + Slashing



Stay for
free

Testdrive a new job





Neutrality



Transparency



Staking + Slashing

Try
before
you buy



Let's get creative!

5

**Web3 companies need
to understand emotions**

“Why should I use
your blockchain?”

“Because we have the
best technology!”

Pros & Cons



Rust



WASM



Lower fees



No EVM



No liquidity



No tooling

The background consists of several overlapping, semi-transparent shapes in shades of pink and orange. A large, bright pink circle is on the left side. To its right, there are several elongated, teardrop-shaped forms in various shades of orange and pink, creating a layered, abstract composition.


**Decisions are always made
emotionally, not rationally**





**People buy things because
they believe it will make them**

Feel Better

The background features several overlapping, semi-transparent shapes in shades of pink and orange. A large, solid pink circle is on the left side. Overlapping it and extending towards the right are several elongated, teardrop-shaped forms in various tones of pink and orange, creating a layered, organic effect.

**So what influences
our emotions?**

Don't like the founder

Sleazy vibes

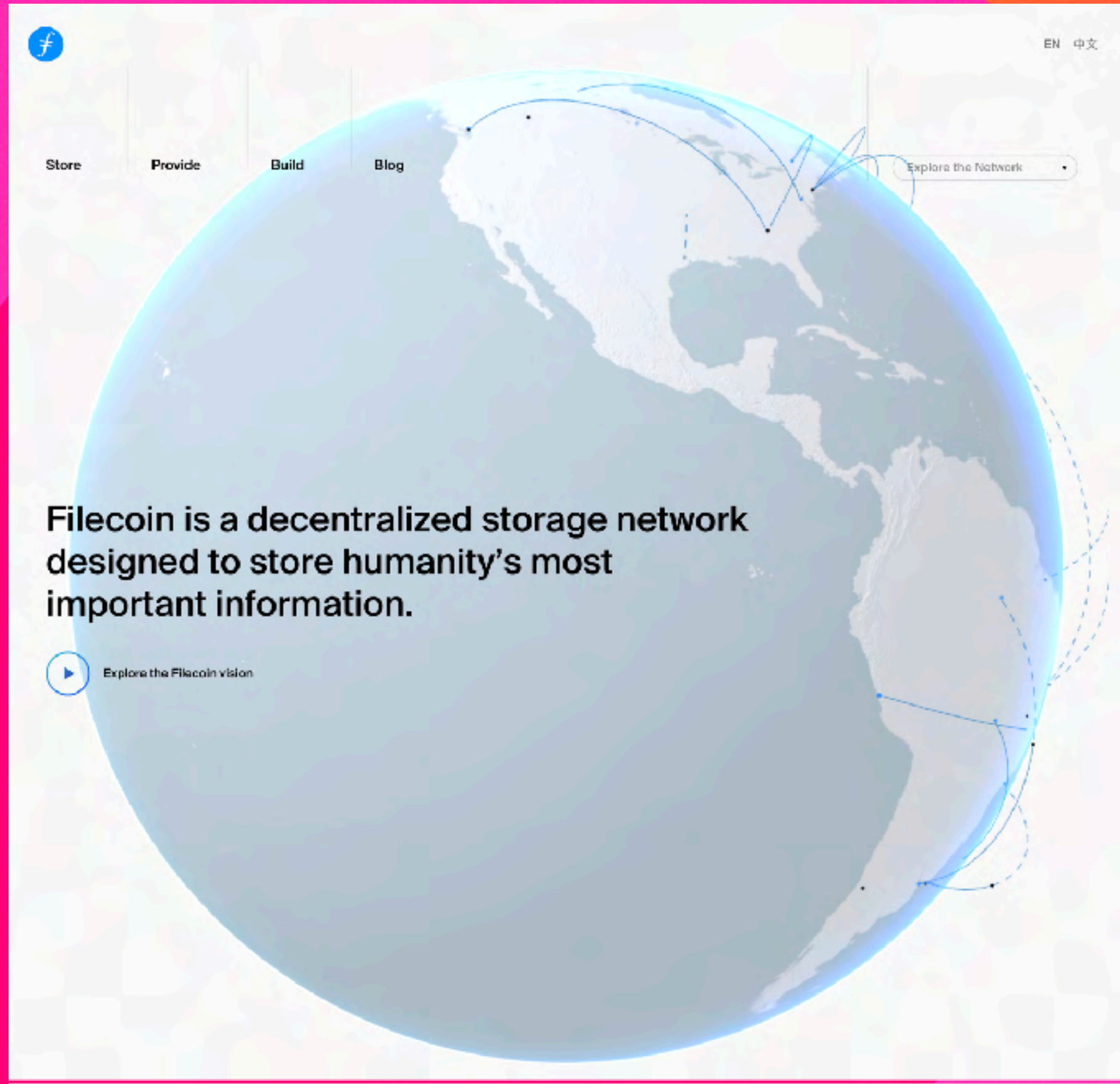
Bad design/UI

Can't understand it



**We can't care about
something we don't
understand**

Filecoin vs Arweave



Filecoin is a decentralized storage network designed to store humanity's most important information.

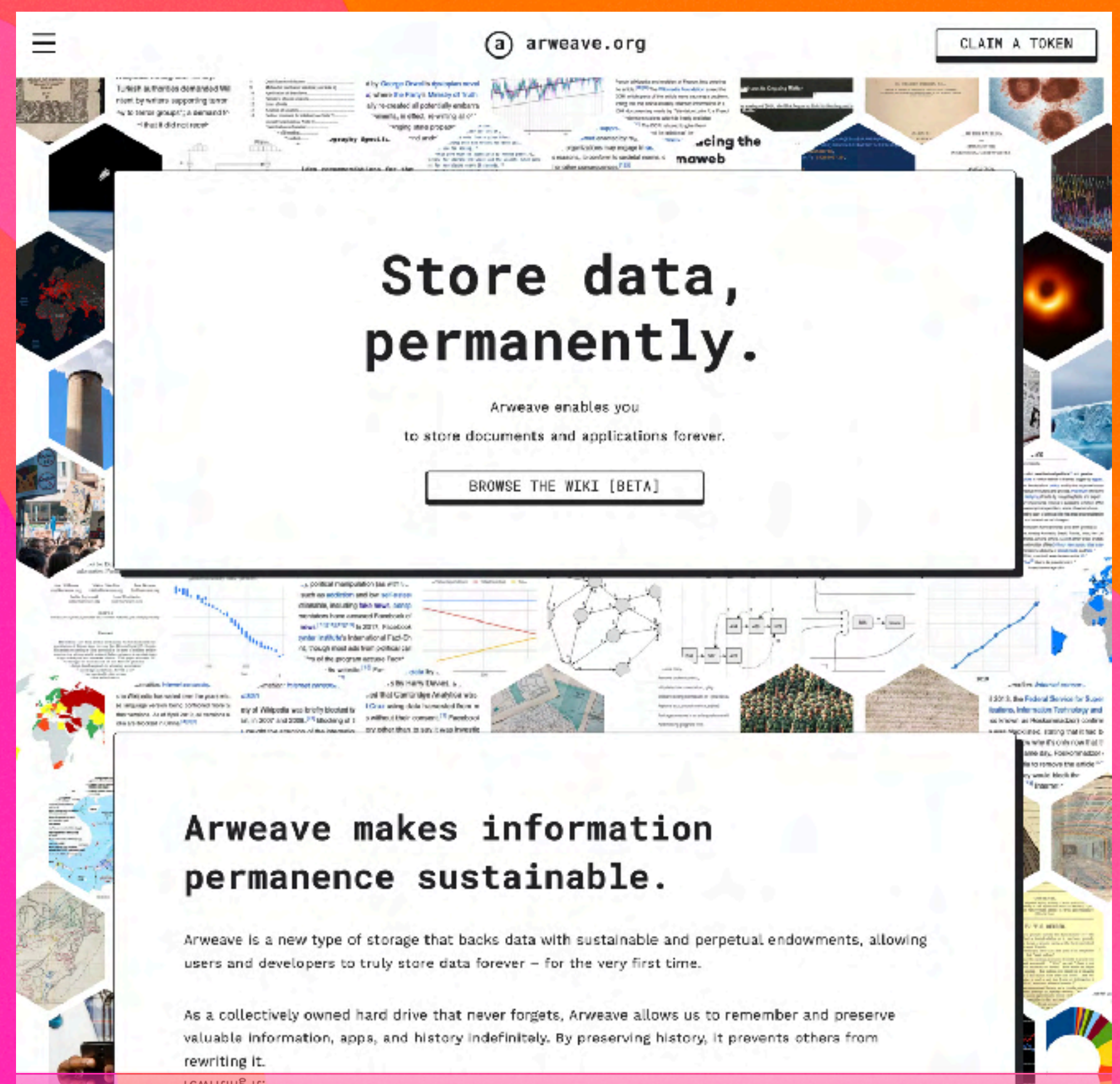
Store Provide Build Blog

EN 中文

Explore the Network

Explore the Filecoin vision

VS



arweave.org CLAIM A TOKEN

Store data, permanently.

Arweave enables you to store documents and applications forever.

BROWSE THE WIKI [BETA]

Arweave makes information permanence sustainable.

Arweave is a new type of storage that backs data with sustainable and perpetual endowments, allowing users and developers to truly store data forever – for the very first time.

As a collectively owned hard drive that never forgets, Arweave allows us to remember and preserve valuable information, apps, and history indefinitely. By preserving history, it prevents others from rewriting it.

A person with blonde hair in a ponytail, wearing a light-colored jacket, is sitting on a rocky mountain peak. They are looking out over a vast valley filled with dense evergreen forests. In the distance, dark, rugged mountains with patches of snow rise against a sky filled with heavy, grey clouds. The overall mood is serene and contemplative.

Peace of mind

RECOMMENDATION

**Make sure your product is
easy to understand**

RECOMMENDATION

**Think how people will feel
using your product**



Polkadot
version 28
#3,902,362

Staking

Accounts

Network

Governance

Developer

Settings 1

GitHub

Wiki

Parity Polkadot v0.8.28
api v3.10.1
apps v0.81.2-3

Staking overview

Account actions

Payouts

Targets

Waiting

Slashes

Validator stats



validators
297 / 297

waiting
459

nominators
6,748

inflation
8.4%

last block
 3,902,362

epoch
4 hrs
1 hr 11 mins

era
1 day
21 hrs 11 mins

⚠ Use the account actions to create a new validator/nominator stash and bond it to participate in staking. Do not send funds directly via a transfer to a validator.

Next session 5 Produced blocks Online message Nominating Oversubscribed Slashed

filter by name, address or index

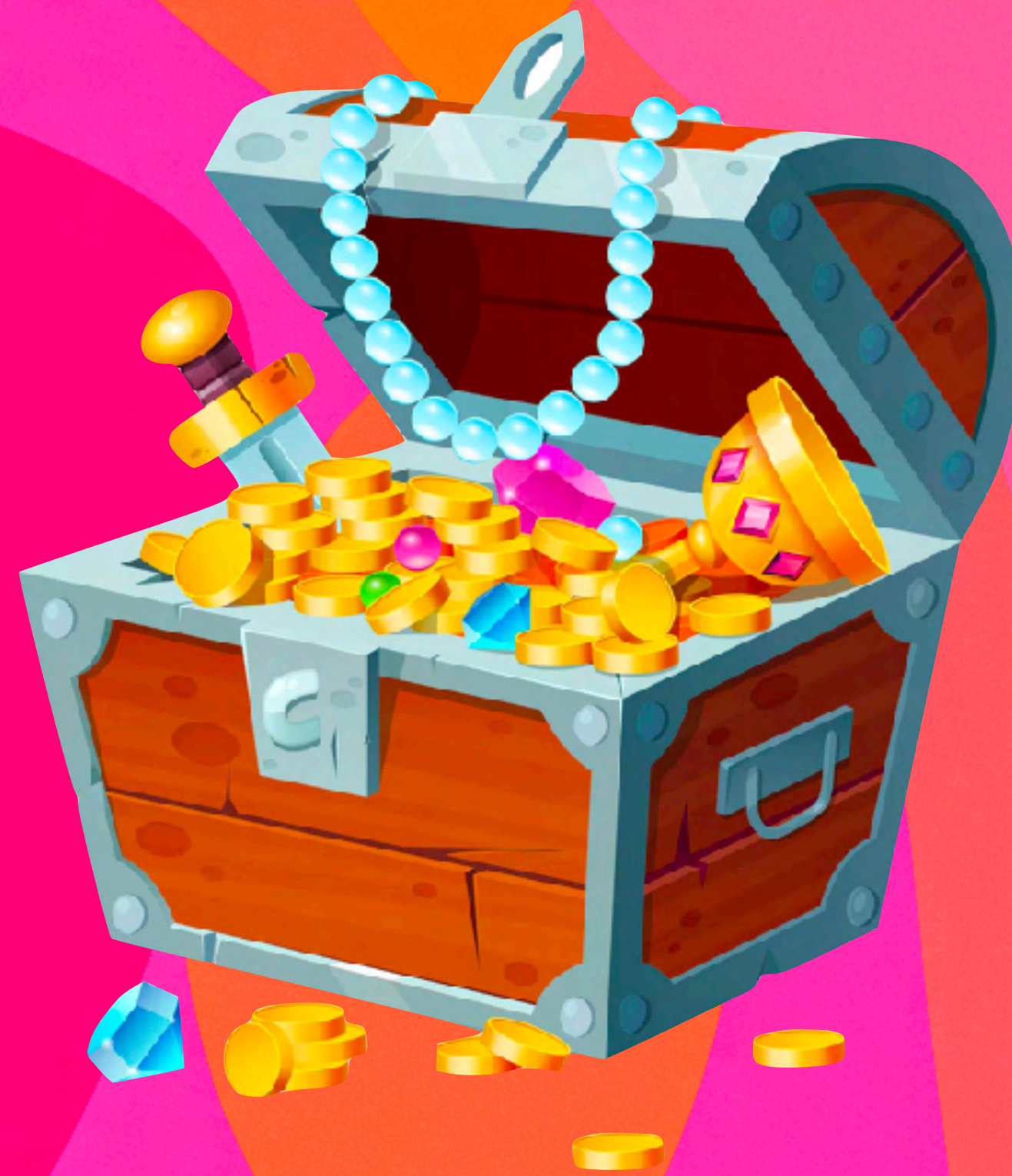
only with an identity

validators

			other stake	own stake	commission	points	last #
★	8	POLKADOT.PRO - REALGAR	2.7897 MDOT (122) ▼	550,259.7157 DOT	1.00%	140	
★	5	RYABINA/ 2	3.1551 MDOT (57) ▼	442.3101 DOT	2.00%	100	
★	1	ZUG CAPITAL/18	2.0718 MDOT (84) ▼	10.0000 DOT	0.70%	20	
★	12	1215rv...DPHFq2	1.7375 MDOT (1) ▼	1.0000 DOT	100.00%	240	



**But what if nobody
cares about your
product...**



6

**Clueless things Web3
companies do**

when nobody wants to use their products

Advertising



Thoughtless Swag



Enforce stupid metrics

Write three blog posts a week

Tweet once per day

**It doesn't matter how many
blog posts you write if
nobody wants to read them!**

Go Corporate



Grants





**Public
Goods**



**You don't want to
use us, but here's
some money!**

Developers are smart!

**If they want to use your
chain, they will!**

7

How do you make
people care?

Focus relentlessly on

Vision & Values



**Values
contract**

Vision expands

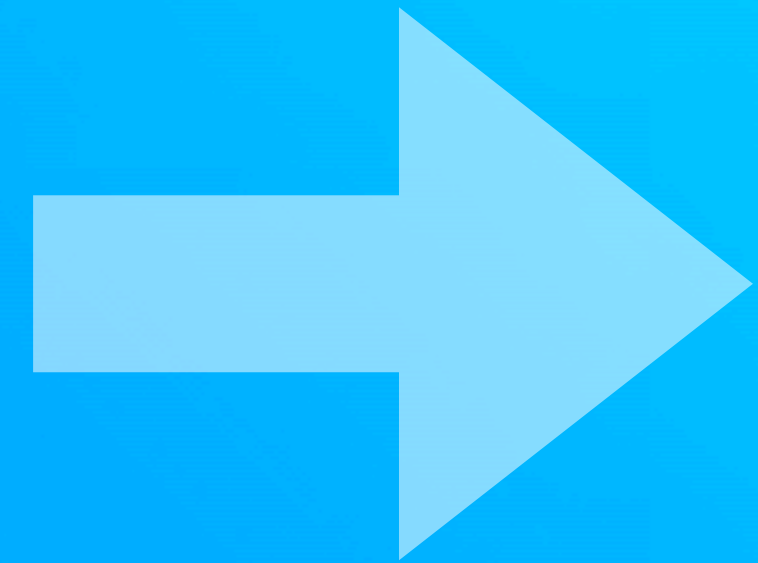
Vision: Build the biggest burger business in Berlin



Values: It must be vegan!

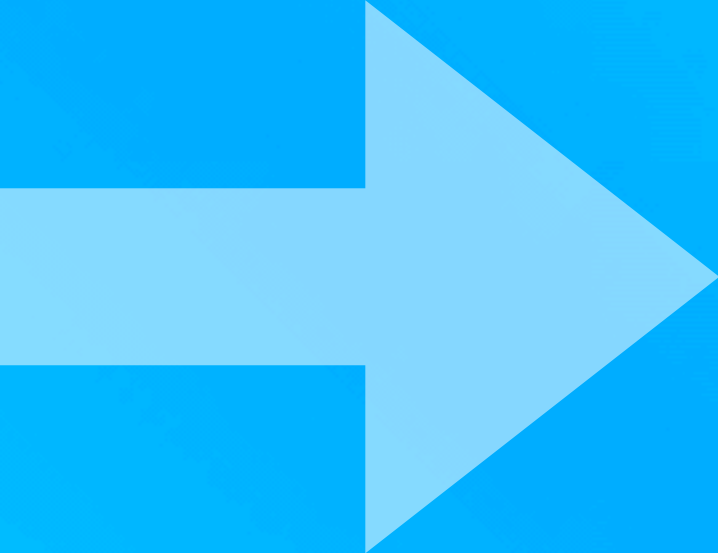


Customers



Fans



Company  **Movement**

People work for free!

JESUS



Think big!

8

**We need to change the
economics of software**

Web2 apps

Supabase
\$25

API Glue

Clouddinary
\$25

API Glue


API Glue

Vercel
\$20

API Glue

Expo
\$99

Web3 apps



ethereum

ether sale ends in:

23 : 9 : 16 : 39
Days Hours Minutes Seconds

Estimated ether purchased:

ETH

Current price:
1 bitcoin buys 1,850 ether

Buy Ether

time remaining at current price:

0 : 9 : 16 : 39
Days Hours Minutes Seconds

next price: 1 bitcoin buys 1,820 ether

WARNING:
To purchase ether your browser must have full javascript capabilities.
Please disable any plugins (like "noscript") that restrict any javascript functionality.
Please do not attempt to purchase ether using iOS.

[web.archive.org/web/20140810104221/https://www.ethereum.org](https://www.ethereum.org)

what

Ethereum is a platform and a programming language that makes it possible for any developer to build and publish next-generation distributed applications.

Ether, Ethereum's cryptofuel, powers the applications on the decentralized network.

Ethereum can be used to codify, decentralize, secure and trade just about anything: voting, domain names, financial exchanges, crowdfunding, company governance, contracts and agreements of most kind, intellectual property, and even smart property thanks to hardware integration.

Ethereum borrows the concept of decentralized consensus that makes bitcoin so resilient, yet makes it trivial to build on its foundation. To find out more about how Ethereum works, consult the [white](#) and [yellow](#) papers.

...will you build with ethereum?

crowd fund

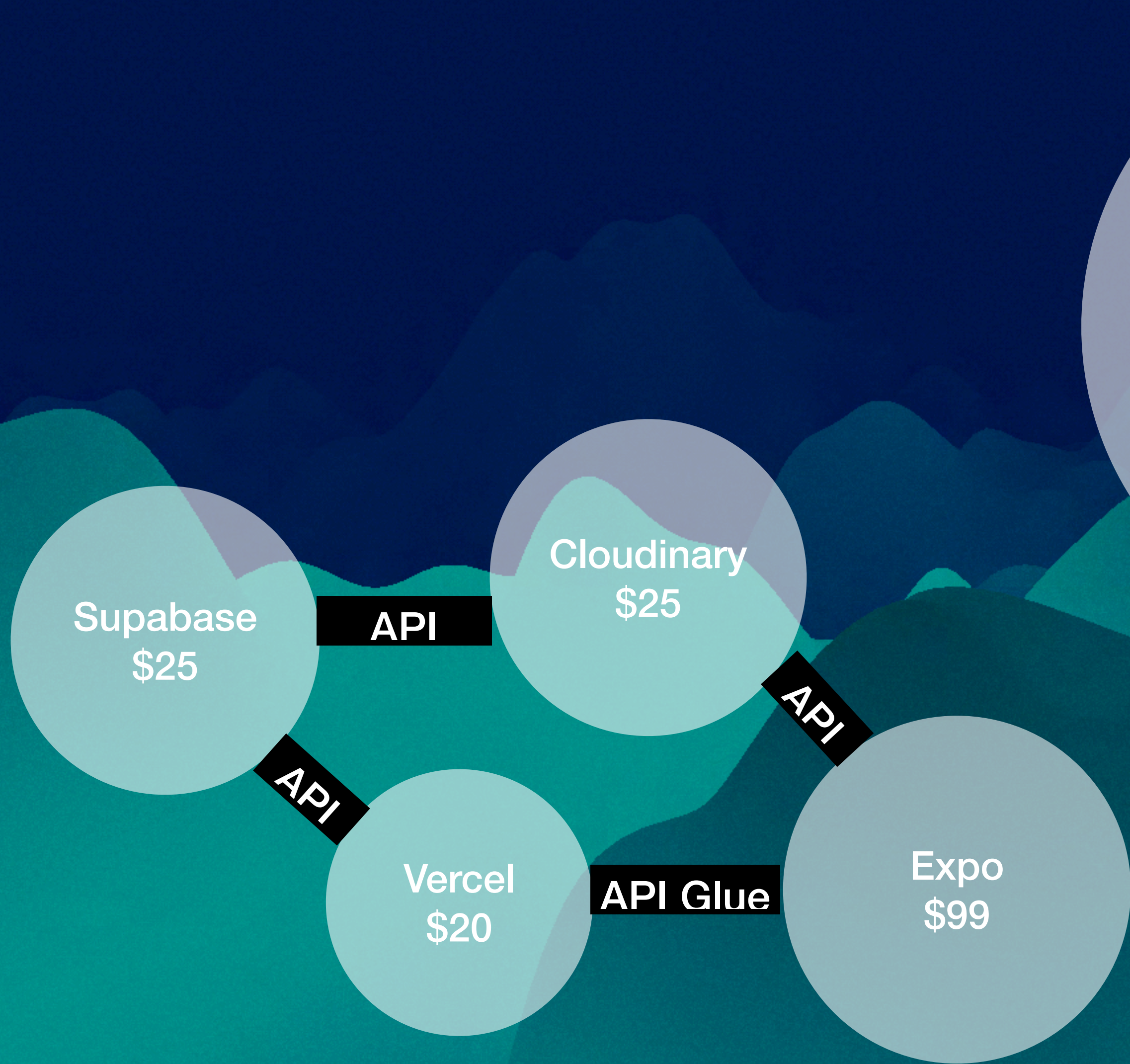
```
if msg.data[0] == 0:
    # Start a campaign, data [goal, time limit]
    id = contract.storage[-1]
    contract.storage[-1] = id + 2^128
    contract.storage[id] = msg.sender // Campaign creator
    contract.storage[id + 1] = msg.data[1] // Goal
    contract.storage[id + 2] = block.timestamp + msg.data[2] // Time limit
    contract.storage[id + 3] = id + 5 // Start recording donations here
    // contract.storage[id + 4] is a running counter
    return(id)
elif msg.data[0] == 1:
    # Contribute to a campaign [id]
    id = msg.data[1]
    val = contract.storage[id + 4]
    contract.storage[id + 4] = val + msg.value
    sub_index = contract.storage[id + 3]
    contract.storage[sub_index] = msg.sender
    contract.storage[sub_index + 1] = msg.value
    contract.storage[id + 3] = sub_index + 2
    # Enough funding?
    if val + msg.value >= contract.storage[id + 1]:
        send(contract.storage[id], val + msg.value)
        v = id
        f = sub_index + 2
```





INITIAL COIN OFFERING





Audits
\$100k?

Legal
\$100k?

Great opportunity for L2

**You'll probably have to
raise money...**



Grants

Angels

VCs

Or do you?

**Can you get revenue
from day one?**



The magic power of Building In Public

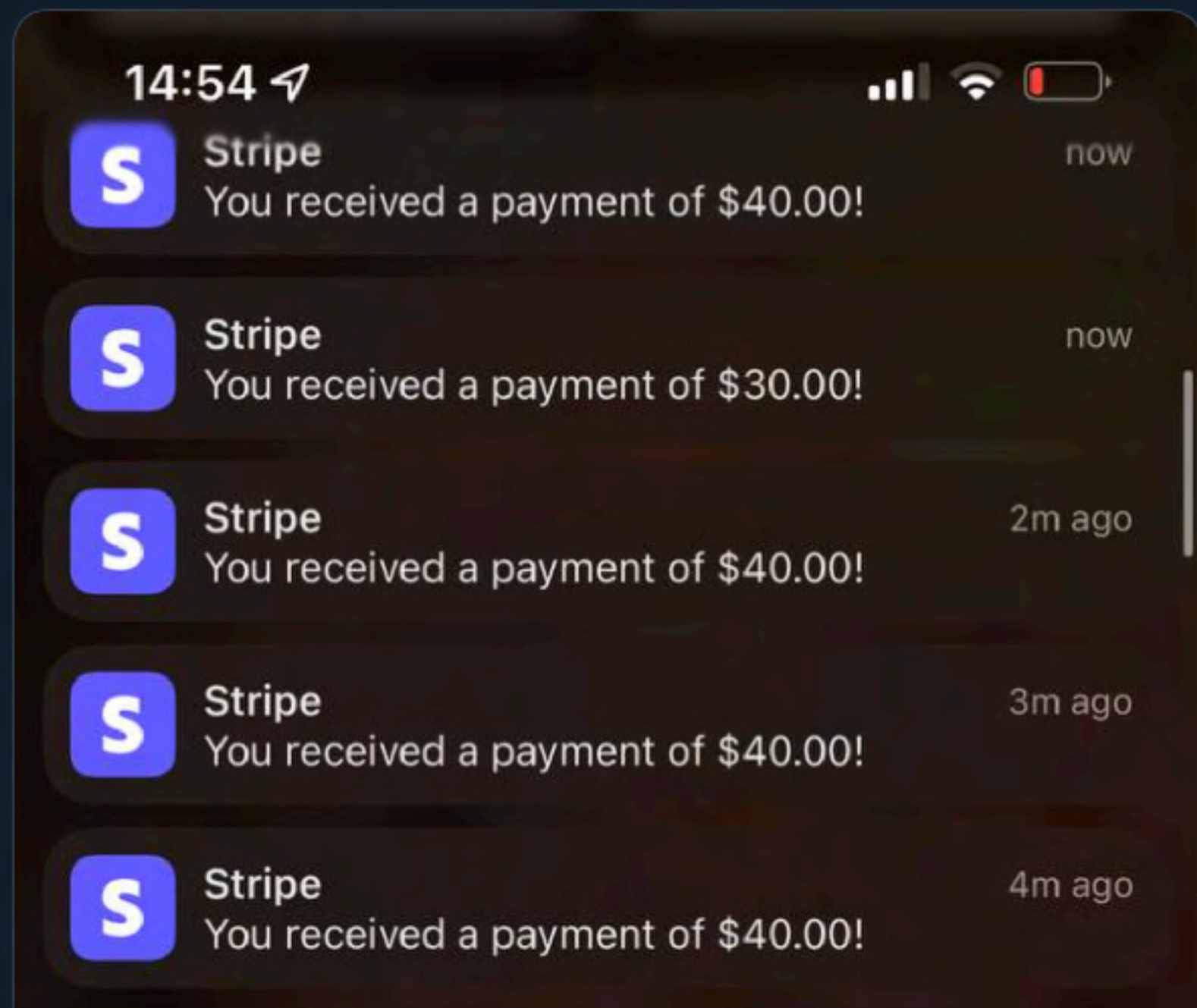


@levelsio
@levelsio



I was busy last few days just trying to keep up and making sure the server didn't crash and ironing out problems like bad input images (e.g. iPhone sends HEIC files so need to convert etc)

Slowly getting to building new features now



@levelsio

Start using Interior AI

Your real email

Confirm your email to use Interior AI

Your current interior

Drop an image, tap take a photo, or CTRL + V

Take a photo of your current room. For best results make sure it shows the entire room in a **90° straight angle facing a wall or window horizontally** (click for example). Not from a corner or angled, and not a wide angle photo as it's trained on regular photos. The AI isn't great at angled pics (yet)! Uploads + renders are shown on site but auto deleted after 15 mins. To make 100% private HQ renders without deletion and watermark [upgrade to Pro](#) and you get your own private workspace.

ROOM

Living room

Render new idea

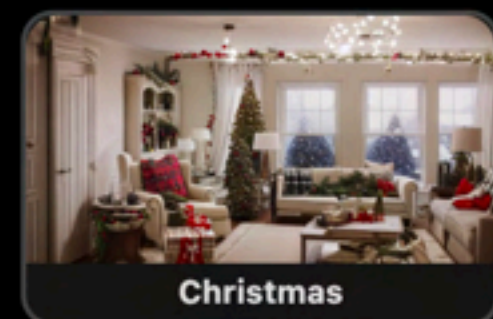
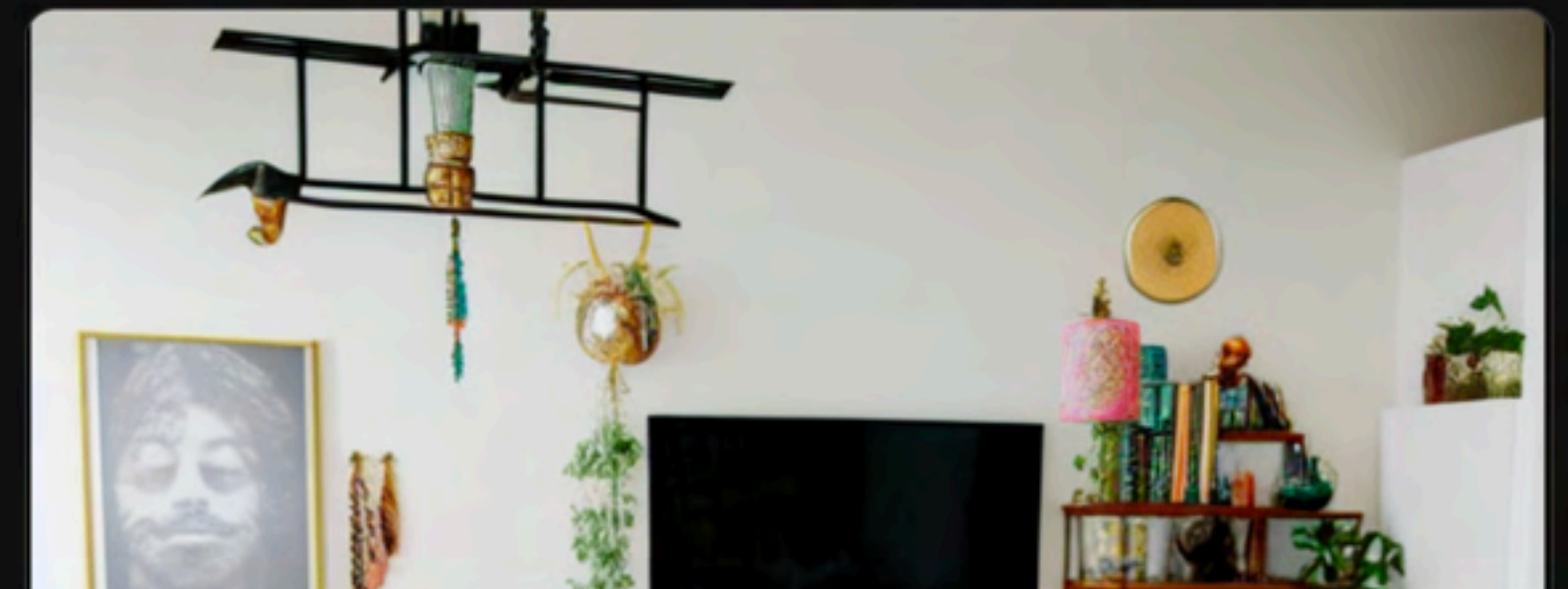
Latest renders



Original Living Room (2m ago, took 7s)



Interior Design of Ski Chalet Living Room (2m ago, took 7s)



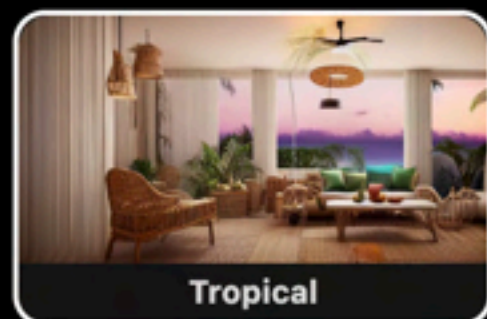
Christmas



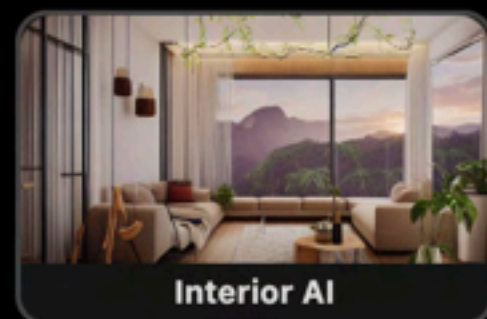
Modern



Minimalist



Tropical



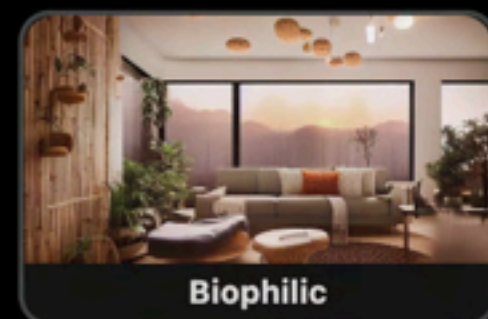
Interior AI



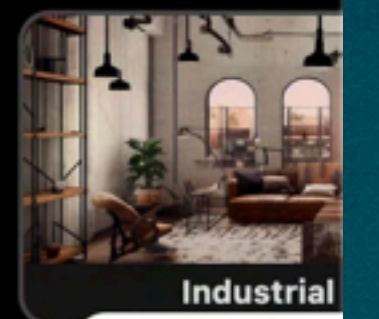
Zen



Midcentury modern



Biophilic

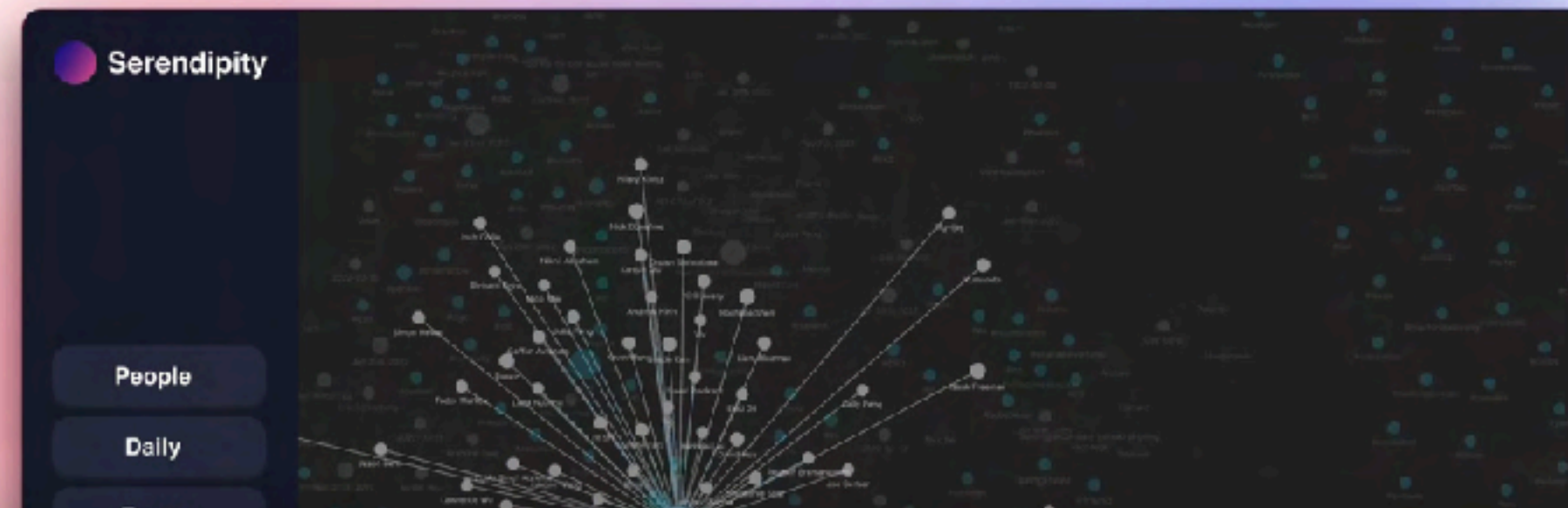


Industrial

A personal relationship manager **for your life.**

Serendipity is the personal relationship manager built for bringing serendipity to your relationships. Update high value relationships, visualize and grow your network, and tap into the full potential of your network. **We are in closed beta** 🚀

Join waitlist 🚀



serendipity.lol



Sigil Wen is creating Serendipity ✨

@OxSigil



The 🔑 is being the Superuser of your own product + Personally onboard the first 200 users 🐱

I use @SerendipityPRM everyday, (nearly) every hour.

I breath User Experience at this point and have immense clarity on how 2 build a sick product people (already) love ❤️

yooneys.eth @yooneys · Aug 25

One thing that's really cool about @SerendipityPRM is that I've seen other note taking apps and such that carried the same idea. The difference is the UX, not only as a product but onboarding, etc. @OxSigil really thought through the full UX cycle from the start; I'm impressed 🤩

[Show this thread](#)

5:34 AM · Aug 25, 2022 · Twitter Web App

@OxSigil



**The main reason startups
need to raise so much?**



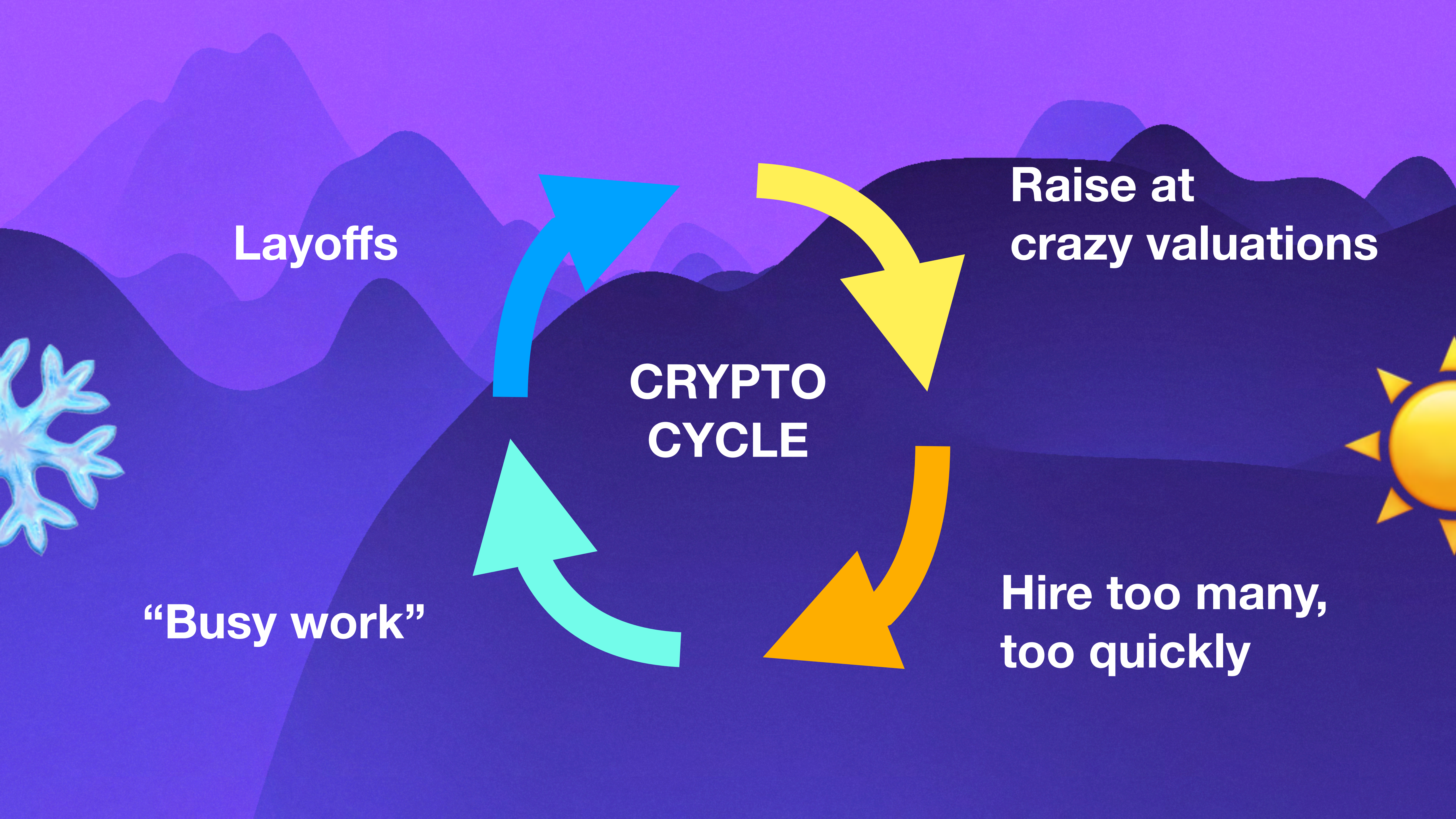
Full-time employees

9

**Web3 companies should
embrace multiple jobs**



Why?





**It doesn't have to
be like this!**



Full-time mindset


The background features a stylized mountain range with multiple peaks of varying heights and colors. The colors range from a light, vibrant purple at the top to a dark, deep blue at the bottom, creating a sense of depth and atmosphere. The mountains are rendered in a layered, overlapping style, with some peaks appearing more prominent than others.

It's what VCs expect





**It's what many
employees want**



Full-time

Secure

Committed

Company retreats

Sense of identity



**Most creative jobs
should not be full-time**



Why?



**Creativity comes from
multiple inputs!**



Multiple sources of income



INCOME

Full-time job

EXPENSES

Rent / mortgage

Car payment

Insurance

Spotify

Vacation

Side-project SASS costs



Psychological Shift



So how should it work?



1. Tell the world

2. Pay a monthly stipend

(thanks to Michiel mf for this idea!)

3. Micro-commitments

(ideally max two weeks out)





**Jealousy,
possession and
insecurity**



**“How do I know
they’re committed?”**



**Be committed to
vision and values not
companies**



**When is full-time a
good idea?**

- 
- 1. Legally responsible**
 - 2. “Head of” positions**
 - 3. Visa reasons**

Better for employers

1. Fewer salaries to pay
2. Less money to raise
3. More new ideas

Payroll & Benefits Built For You

Opolis celebrates your independence while providing the employee benefits you need.

Let's Chat

First name*

John

Last name*

Smith

Email*

JohnSmith@Freelancer.com

Phone number*

123-456-7890

State/Province*

Please Select

Annual revenue*

80000

Do you have an S-Corp?

Please Select

Submit

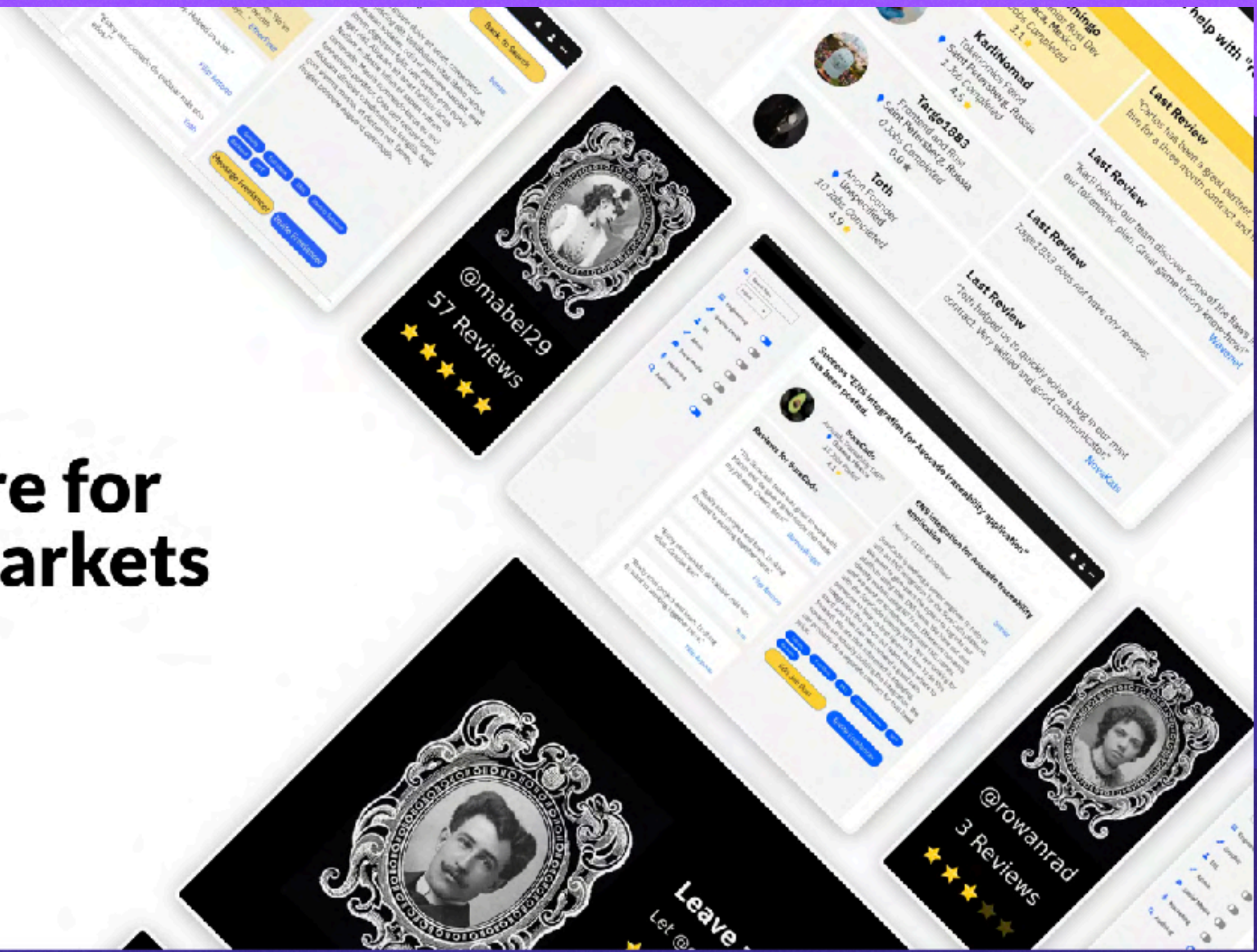


Stay tuned....

TalentLayer

infrastructure for
open labor markets

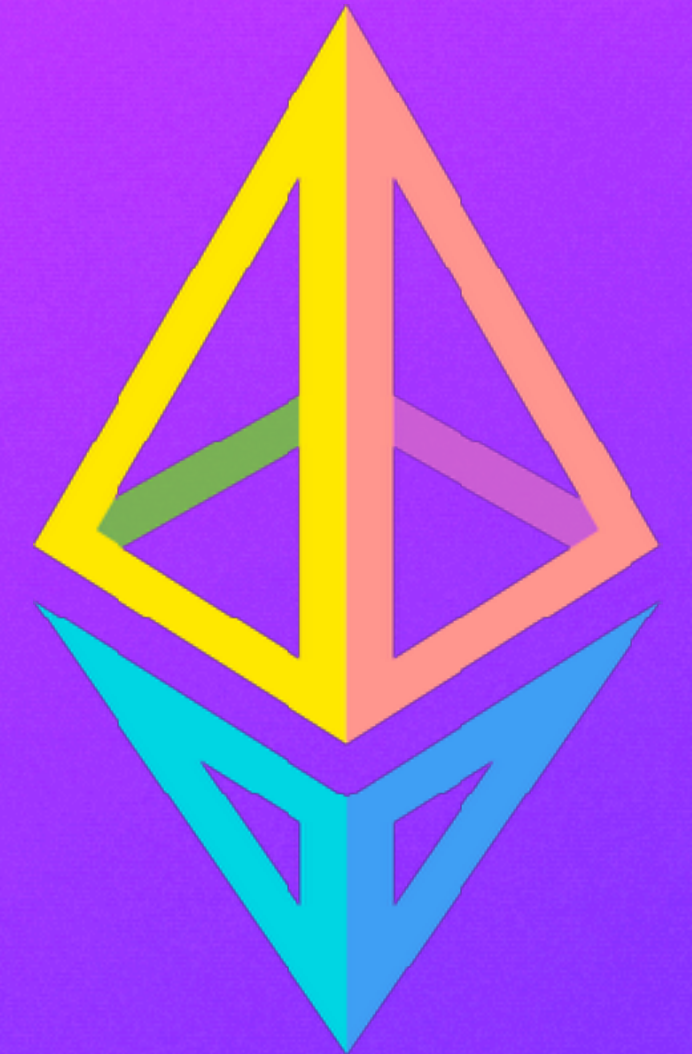
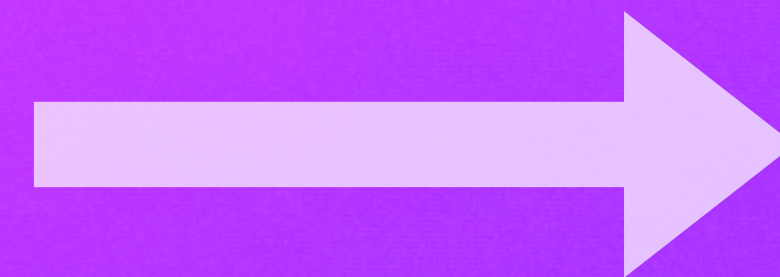
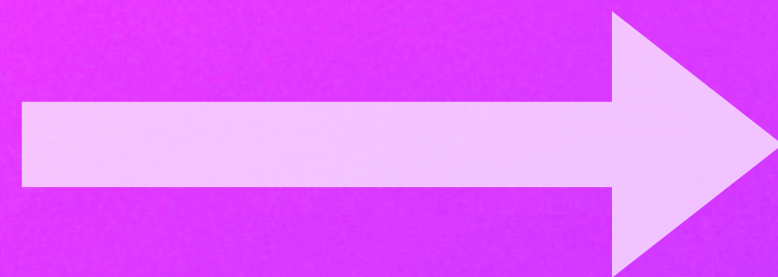
LEARN MORE



TalentLayer.org

10

**We need full-stack
decentralisation**



**Centralised
RPC Services**



Building Helios: Fully trustless access to Ethereum

by Noah Citron

November 7, 2022

One of the main reasons we use blockchains is trustlessness. This property promises to allow us self-sovereign access to our wealth and data. For the most part, blockchains like Ethereum have delivered on this promise — our assets are truly ours.

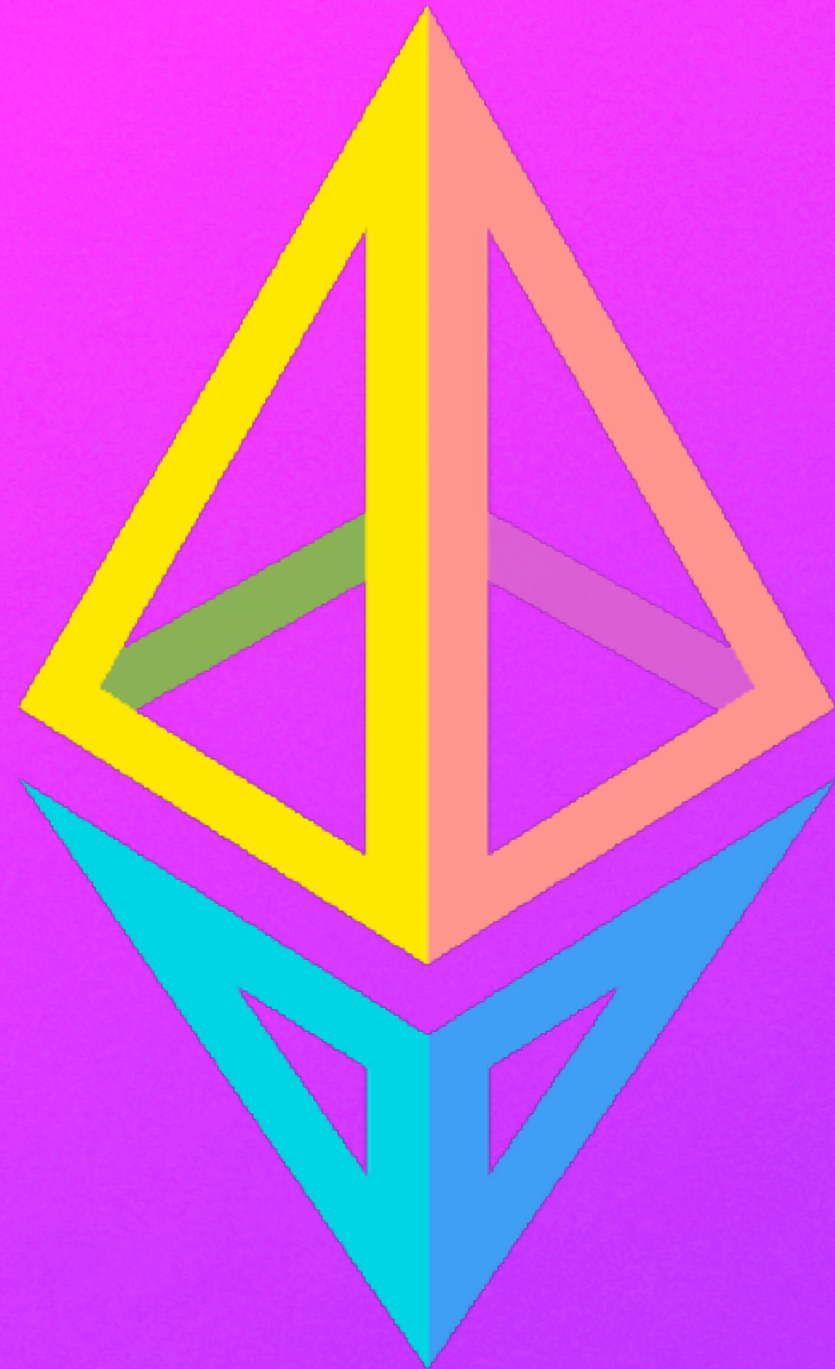
However, there are concessions we've made for the sake of convenience. One such area is in our use of centralized RPC (remote procedure call) servers. Users typically access Ethereum through centralized providers like Alchemy. These companies run high-performance nodes on cloud servers so that others can easily access chain data. When a wallet queries its token balances or checks whether a pending transaction has been included in a block, it almost always does so through one of these centralized providers.

The trouble with the existing system is that users need to trust the providers, and there is no way to verify the correctness of their queries.

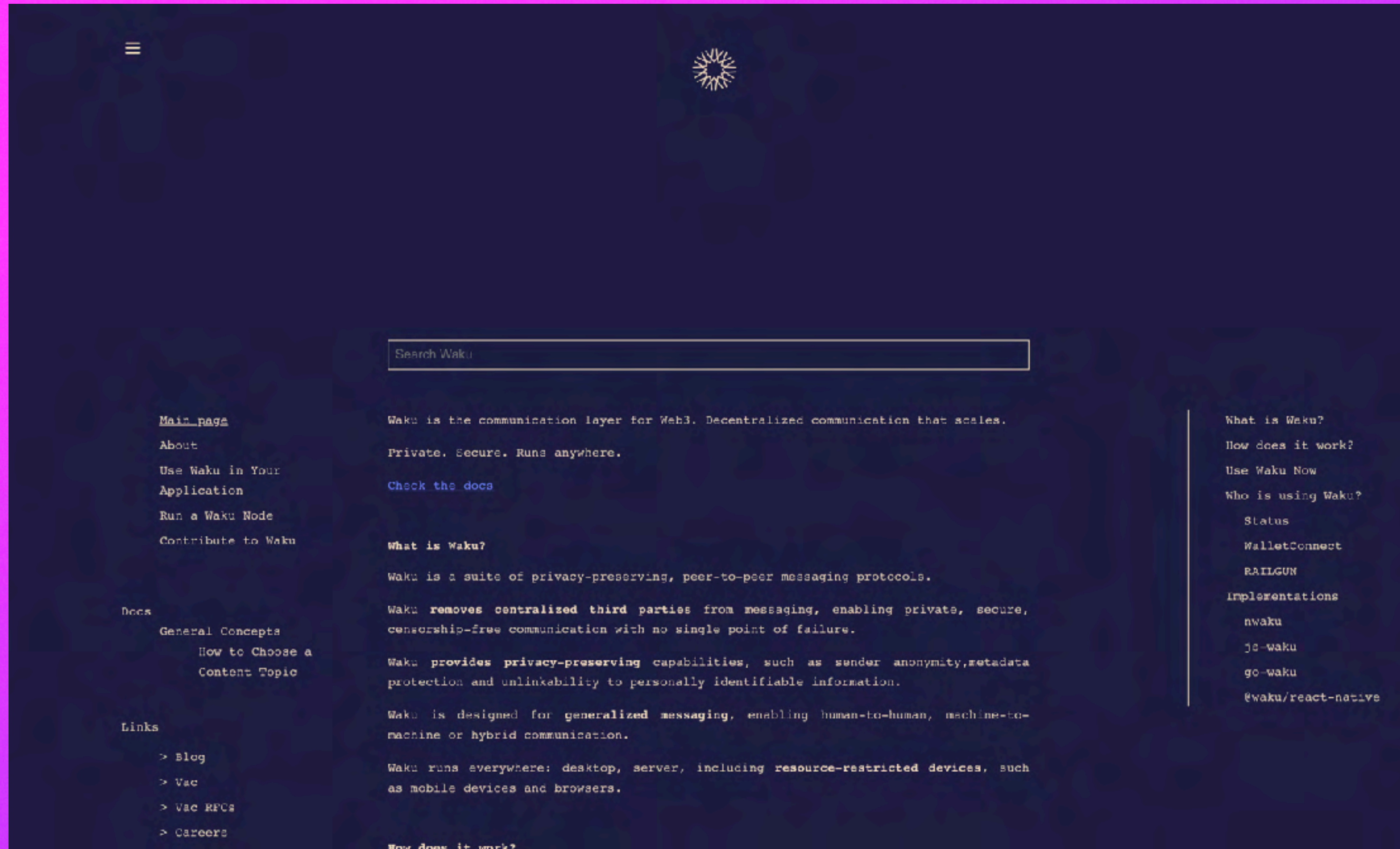
**Not everything needs
a blockchain!**

**Not everything needs
a blockchain!**

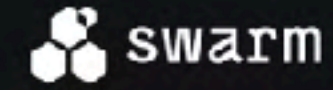
global state and timestamping



**Consensus
Messaging
Storage**



waku.org

[USE SWARM](#)[RESOURCES](#)[ECOSYSTEM](#)[BLOG](#)[JOIN TEAM](#)

Digital Freedom Now.

Swarm is a decentralised data storage and distribution technology.
Ready to power the next generation of censorship-resistant,
unstoppable, serverless dapps.

[START BUILDING >](#)[RUN YOUR NODE >](#)

ethswarm.org



protecting people's privacy
the decentralized database for developers.

GET STARTED

DOCUMENTATION

gun.eco

A clean-slate OS and network for the 21st century.

[Explore the Network](#)



Assembly 2022

Select talks and panels are being released from the second annual Urbit confluence in Miami.

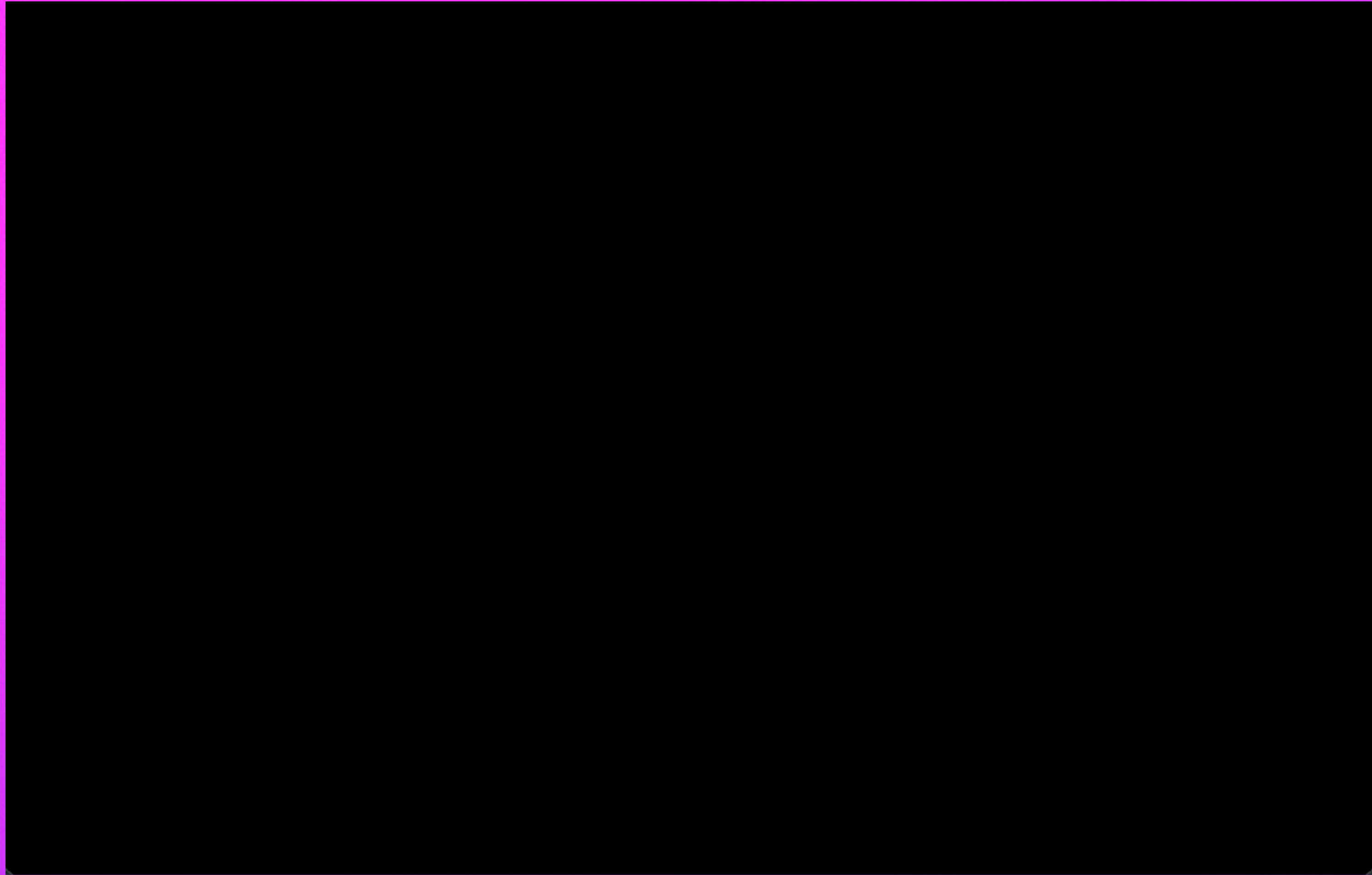
[Watch Now](#)

urbit.org

A CODING ENVIRONMENT FOR **WEB3 APPS**

UQBAR IS A
ONE-STEP CODING ENVIRONMENT
THAT MAKES WRITING AND
DEPLOYING SMART CONTRACTS
SIMPLE, EFFICIENT, AND SECURE.

uqbar.network



holium.com

Composabile Primitives



Presence



Wallet



Community

dao.hoon U x

con > dao.hoon

```

1  :: dao.hoon
2  ::
3  :: a simple starter dao contract
4  ::
5  /+ *zig-sys-smart
6  /= lib /con/lib/dao
7  =, lib
8  |_ =context
9  ++ write
10 | = =action
11 ^- [(list call) diff]
12 ? : ?=(%create-dao -.action)
13   :: can only be called once! any call after will fail
14   :: start a new DAO with one member
15   =/ =dao
16   | :- name.action
17   | (make-pmap ~[[[address ship role]:first.action]])
18   =/ item-id
19   | (hash-data this.context this.context town.context 0)
20   =/ =item
21   :* %& item-id
22   | this.context :: source contract
23   | this.context :: item holder
24   | town.context :: current town ID
25   | 0 :: salt
26   | %dao :: label
27   | dao :: inner data
28   ==
29   :: return the resulting diff,
30   :: and an event showing what happened
31   =/ events [%dao-created s+name.action]~
32   `(result ~ item^~ ~ events)

```

dao.hoon U x

dao.hoon U x

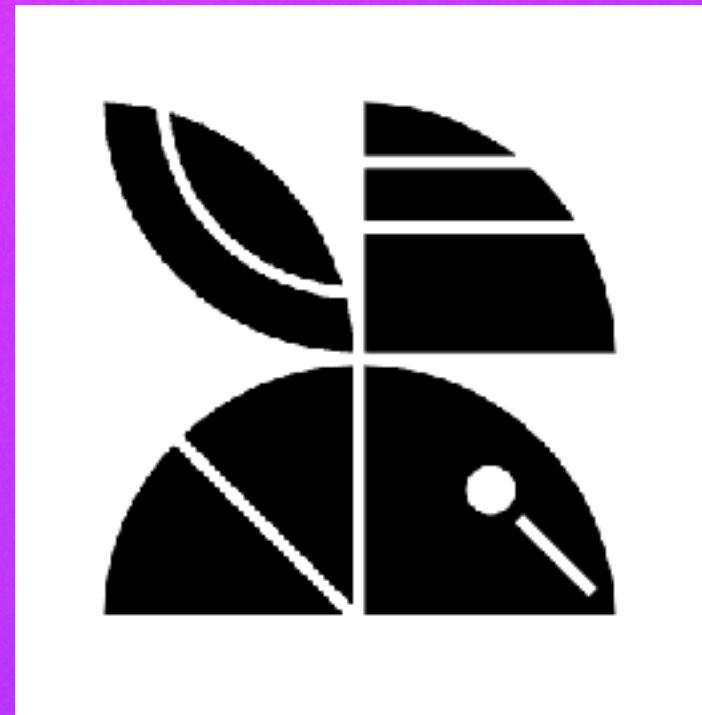
con > lib > dao.hoon

```

1  /+ *zig-sys-smart
2  |%
3  ::
4  :: type definitions
5  ::
6  +$ action
7  | $% [%create-dao name=@t first=[address
8  |   [%add-member dao=id =address =ship
9  |   [%remove-member dao=id =address]
10 |   [%assign-role dao=id =address role=@
11 | ==
12 ::
13 +$ dao
14 | $: name=@t
15 |   members=(pmap address [=ship role=@
16 | ==
17 --
18

```

Free pseudoanon name and PFP!



~locruc-fonmec

Ethereum in 2014

=

Urbit today

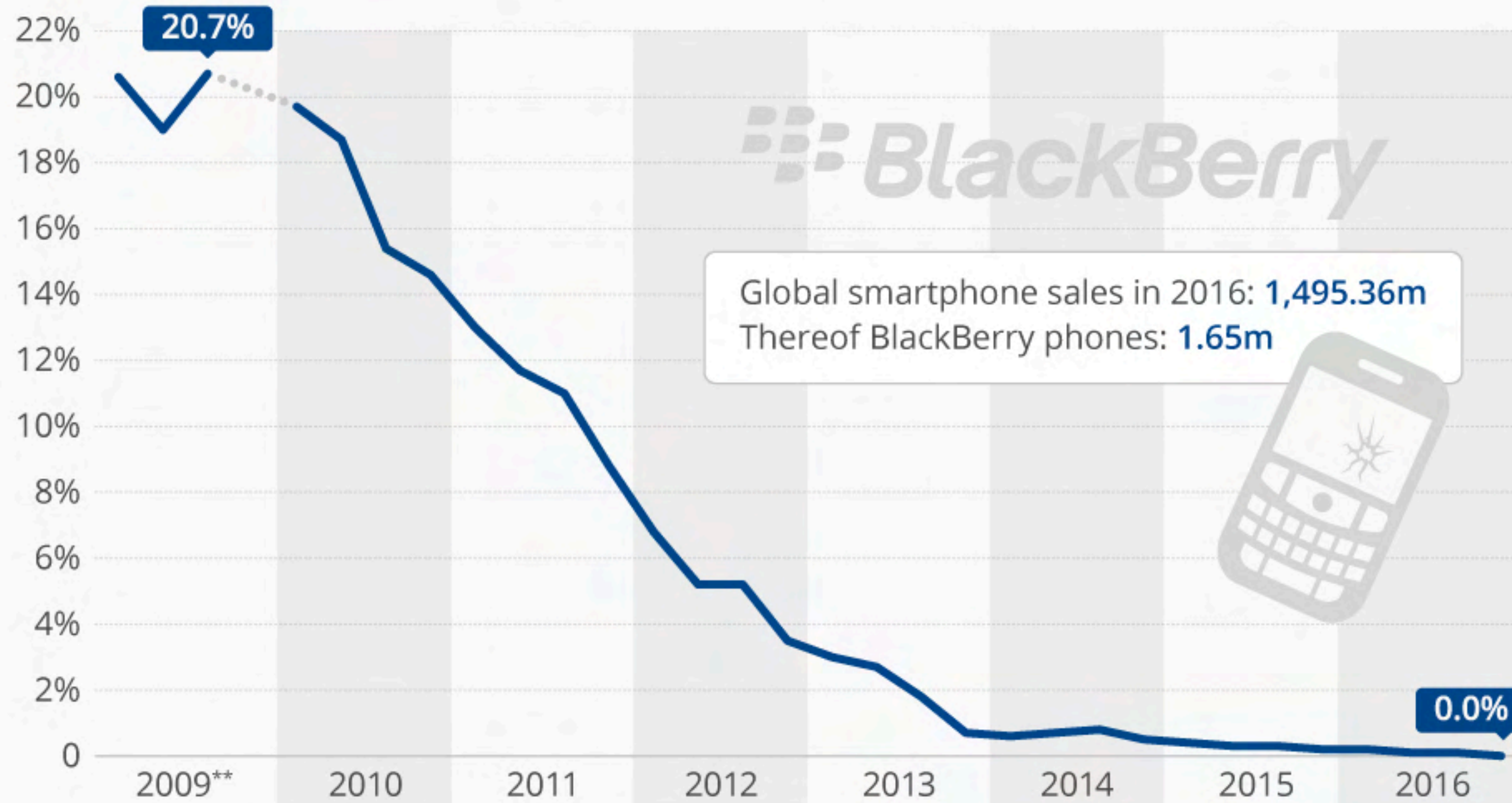
11

**What is big today may
not be big tomorrow**



The Terminal Decline of BlackBerry

Worldwide market share of BlackBerry smartphones (% of unit sales)*



* includes only those BlackBerry phones running the company's own operating system

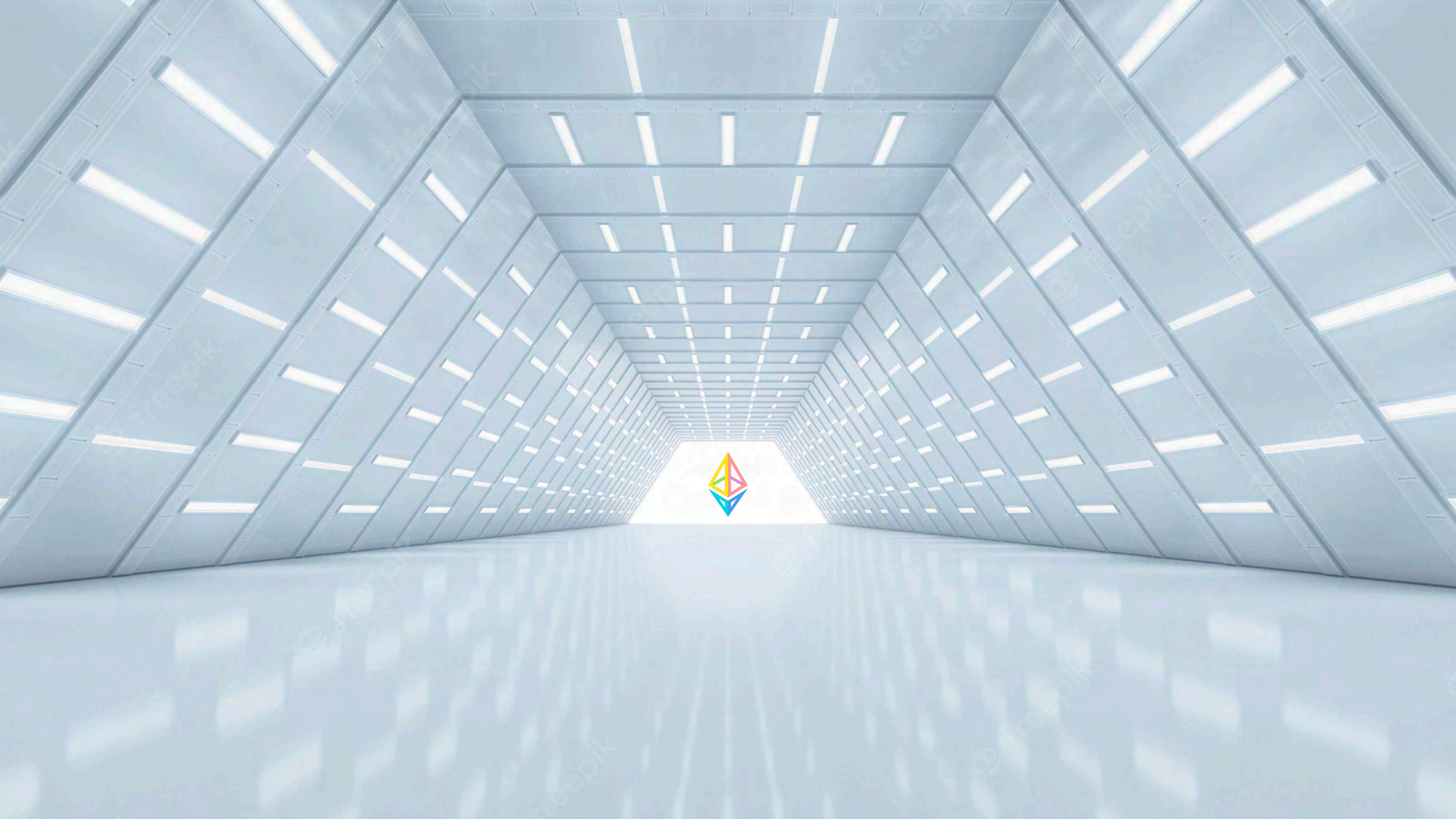
** no data available for Q4 2009



@StatistaCharts

Source: Gartner

statista



“Whale Chain”

**“If anybody’s going to make
our products obsolete, I
want it to be us.”**

Steve Jobs

1. Introduction

- 1.1. Installation
- 1.2. Sway Quickstart
- 1.3. The Fuel Toolchain
- 1.4. A Forc Project
- 1.5. Standard Library

2. Examples

- 2.1. Counter
- 2.2. Subcurrency
- 2.3. FizzBuzz
- 2.4. Wallet Smart Contract

3. Program Types

- 3.1. Contracts
- 3.2. Libraries
- 3.3. Scripts
- 3.4. Predicates

4. Sway Language Basics

- 4.1. Variables
- 4.2. Built-in Types
- 4.3. Blockchain Types
- 4.4. Functions
- 4.5. Structs, Tuples, and Enums
- 4.6. Methods and Associated Functions
- 4.7. Comments and Logging
- 4.8. Control Flow

5. Blockchain Development with Sway

- 5.1. Hashing and Cryptography
- 5.2. Contract Storage

2.5. Contract Storage

2.6. Hashing and Cryptography

The Sway Programming Language

Sway is a domain-specific language (DSL) for the [Fuel Virtual Machine \(FuelVM\)](#), a blockchain-optimized VM designed for the Fuel blockchain. Sway is based on [Rust](#), and includes syntax to leverage a blockchain VM without needlessly verbose boilerplate.

This book documents how to write smart contracts in Sway, along with how to install and use the Sway toolchain.

Before starting developing smart contracts in Sway, please keep in mind the [known issues and workarounds](#) of the language and toolchain.



Noir

The Universal ZK Circuit Language.

Privacy isn't EVM-compatible.

Aztec's Rust-based privacy programming language allows for the safe, seamless construction of privacy-preserving zero-knowledge circuits.



**But what is the
next big language?**

12

**We simply cannot
ignore AI**



Zahid Khawaja

@chillzaza_



A lot of users have been asking me for the DALL·E prompt. Happy to share! @1littlecoder

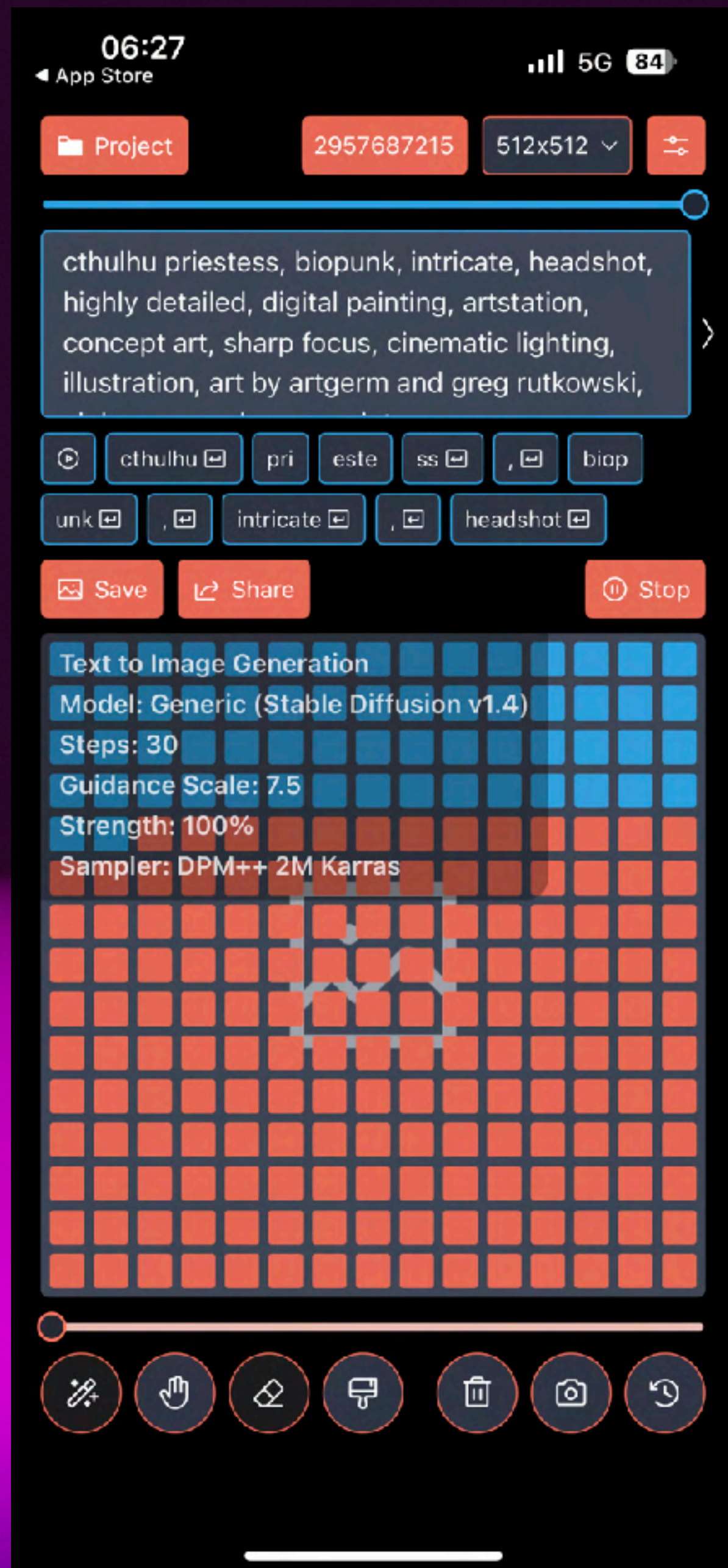
"perfectly symmetrical abstract logo, balanced, centered, deep colors, aesthetic, silicon valley startup, innovative structure"



Zahid Khawaja @chillzaza_ · Nov 4

I'm generating all of my logos using AI these days.





Draw Things app on iOS



Metaphor

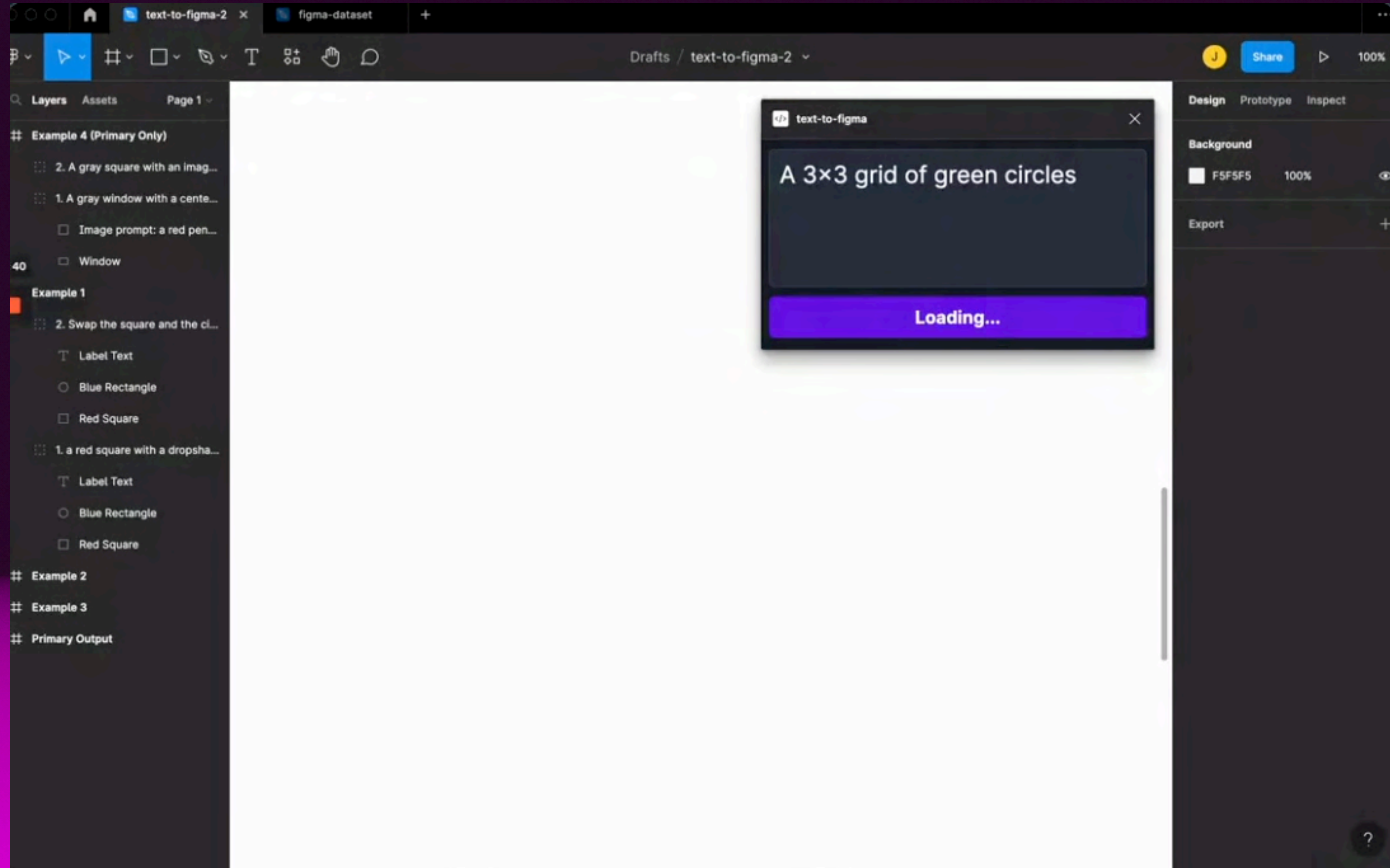
Web search hasn't changed in 20 years. We're building a new search engine from scratch, using the same ideas behind DALL-E and Stable Diffusion. It understands language – in the form of prompts – so you can say what you're looking for in all the expressive and creative ways you can think of. And, if we're lucky, it might make the internet feel a little less like a wall of ads.

Log in with discord to get started:

 SIGN IN

Or scroll to play with some templates:

metaphor.systems

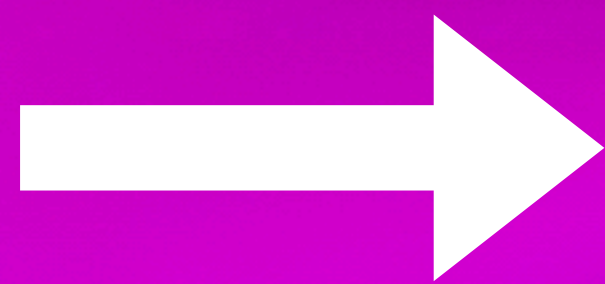


text-to-figma.com

Golden Age of AI

No regulation

No product placement

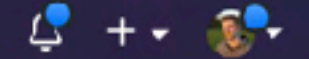


**What has this got to do
with Web3?**



Search or jump to...

[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)



Features

[Actions](#) [Packages](#) [Security](#) [Codespaces](#) [Copilot](#) [Code review](#) [Issues](#) [Discussions](#)

Your AI pair programmer

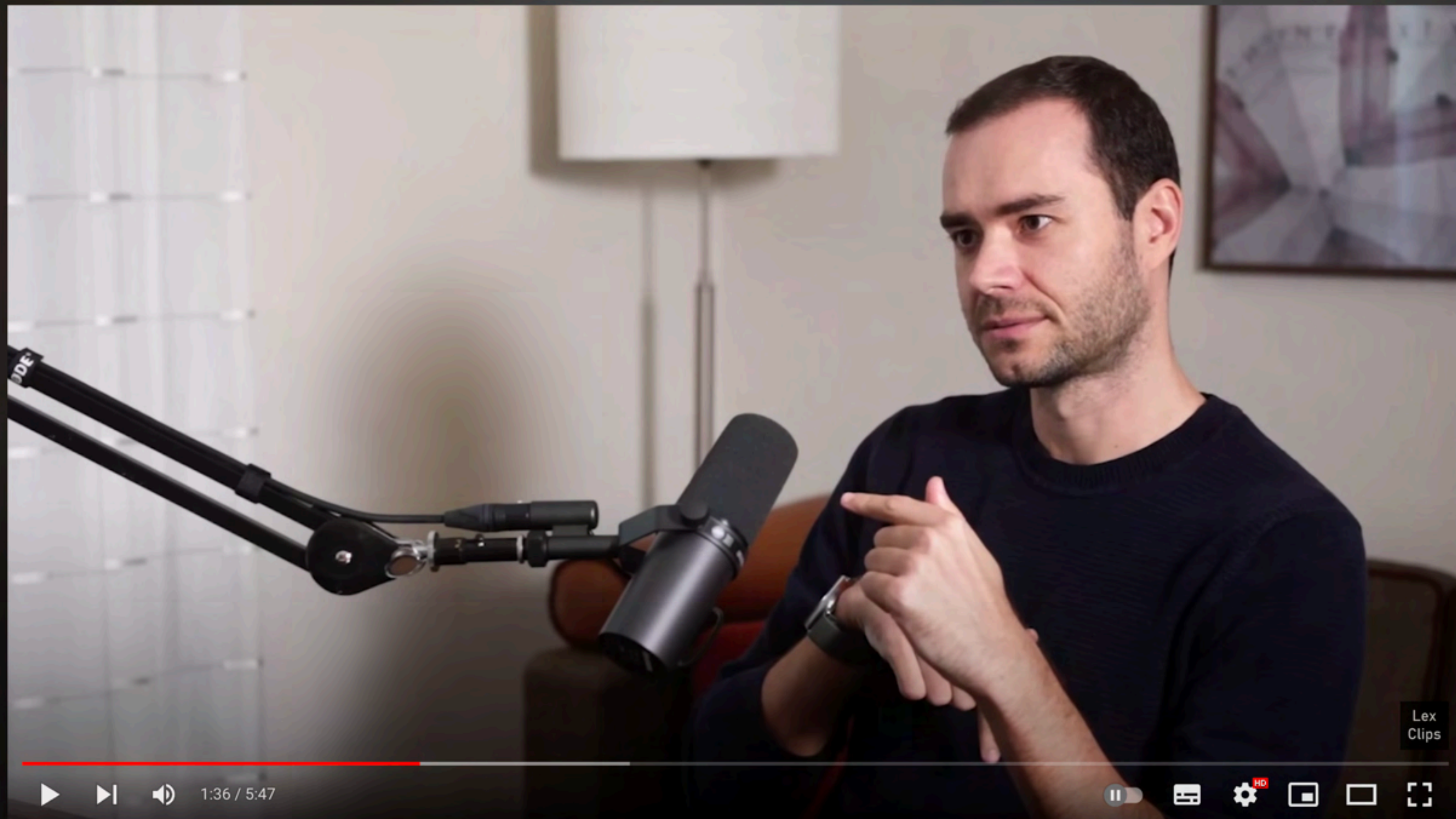
GitHub Copilot uses the OpenAI Codex to suggest code and entire functions in real-time, right from your editor.

[Start my free trial >](#)

[Explore docs](#)

sentiments.ts write_sql.go parse_expenses.py addresses.rb

```
1 #!/usr/bin/env ts-node
2
3 import { fetch } from "fetch-h2";
4
5
6
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8
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11
12
13
14
```



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Existing paradigm

index.ts

if when while switch

class super this loop end

No no no

PREDICTION

**Eventually all bytecode
will be written by AI**

No unit tests

No integration test

No audits

No hacks

Anyone can make a dapp

**Someone, somewhere
is working on this**

owen@owenbarnes.com

And finally...



[team](#)

Exez

Visual identity, design



[team](#)

Clairee

Social networks



[team](#)

Dominika

Volunteers



[team](#)

Adam (vorcigernix)

Website, community calls | Zitrone founder,
member of Developer DAO and Forefront



[team](#)

Tereza

Production, sponsors | Holky v Kryptu co-
founder, chairman of UTXO Foundation



[team](#)

Tree

Vision, content | Gwei.cz and BohemianDAO
founder, Ethereum enthusiast



[team](#)

Hedvika (headwitch)

Mentor seeking, experiences curation



[team](#)

Jacob

Networking support



THE END

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owenbarnes.com

**I want to work with
people who do the
right thing when
nobody is looking**