



al6z

# How to Win the Future

An Agenda for the Third Generation  
of the Internet

October 2021

# Overview

## 1 **A Crisis in America's Technology Leadership**

Staying still means falling behind and failing the American people

## 2 **The Promise of a Better Internet**

Why policymakers should embrace the potential of web3

## 3 **How to Win the Future**

An agenda for policymakers

## 4 **About Andreessen Horowitz**

Backing bold entrepreneurs who are building web3 companies and protocols

# A Crisis in America's Technology Leadership

Staying still means falling behind and failing  
the American people





**When the producers of HBO’s “Westworld” wanted to portray the American city of the future, they didn’t film in Seattle or Los Angeles or Austin — they went to Singapore. We should have gleaming skyscrapers and spectacular living environments in all our best cities at levels way beyond what we have now; where are they?**

Marc Andreessen



**If the vigilance was dropped,  
even for a moment, then the  
weight of the battle would shift.**

**We are forced to keep running  
merely to keep still.**

Siddhartha Mukherjee

# The World Has Two Tech Paradigms; Both Are Flawed

In the long run, digital authoritarianism and big tech are both incompatible with a healthy open society



Digital Authoritarianism



Big Tech

# The Corrosion of the Internet

This is not about evil corporations; our incentives and infrastructure are broken



Tuesday's Internet Outage Was Caused By One Customer Changing A Setting, Fastly Says



**Right or Left, You Should Be Worried About Big Tech Censorship**



**Cloudflare CEO says his Daily Stormer takedown was “arbitrary” and “dangerous”**

“I woke up this morning in a bad mood and decided to kick them off the Internet.”



**The Internet Is Rotting**

Too much has been lost already. The glue that holds humanity's knowledge together is coming undone.

# Trust and Faith in Institutions is Declining

Many of the core institutions that power our economy and society are struggling

## Dimensions of trust (Competence score, net ethical score)



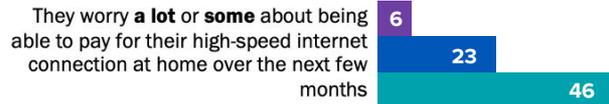
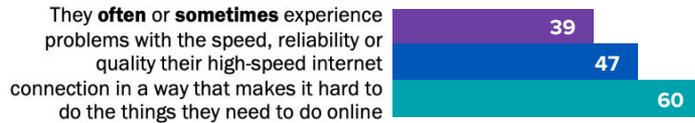
Source: [Edelman](#)

# Average Americans are Being Left Out

We must do more to promote equity and opportunity in the digital economy

**60% of broadband users with lower incomes often or sometimes have connection problems, and 46% are worried at least some about paying for broadband**

*% of U.S. home broadband users who say ...*

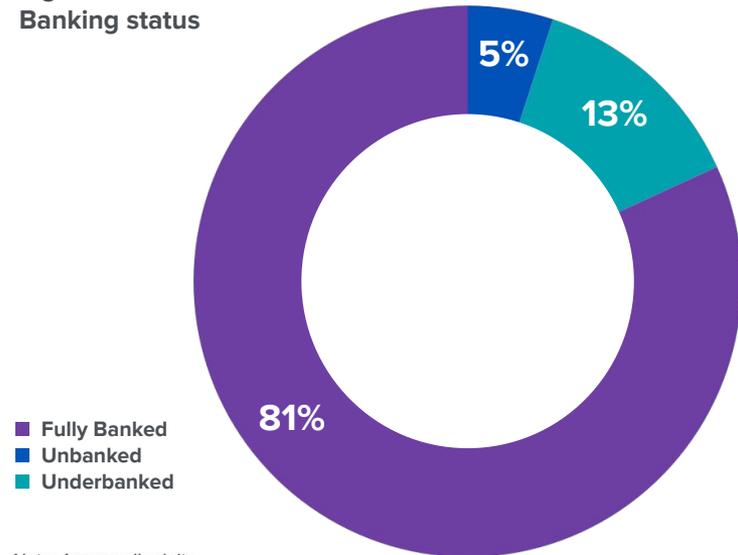


■ Upper Income ■ Middle Income ■ Lower Income

Note: Income tiers are based on adjusted 2019 earnings. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

Figure 21.  
Banking status



Note: Among all adults.

# For Better and Worse, Policymaking Amplifies the Impact of Innovation

1997: The Clinton Administration proposes a set of principles for the internet



## The Framework for Global Electronic Commerce

The private sector should lead.

Governments should avoid undue restrictions on electronic commerce.

Where governmental involvement is needed, its aim should be to support and enforce a predictable, minimalist, consistent and simple legal environment for commerce.

Governments should recognize the unique qualities of the Internet.

Electronic Commerce over the Internet should be facilitated on a global basis.

Source: [Clinton White House Archive](#)

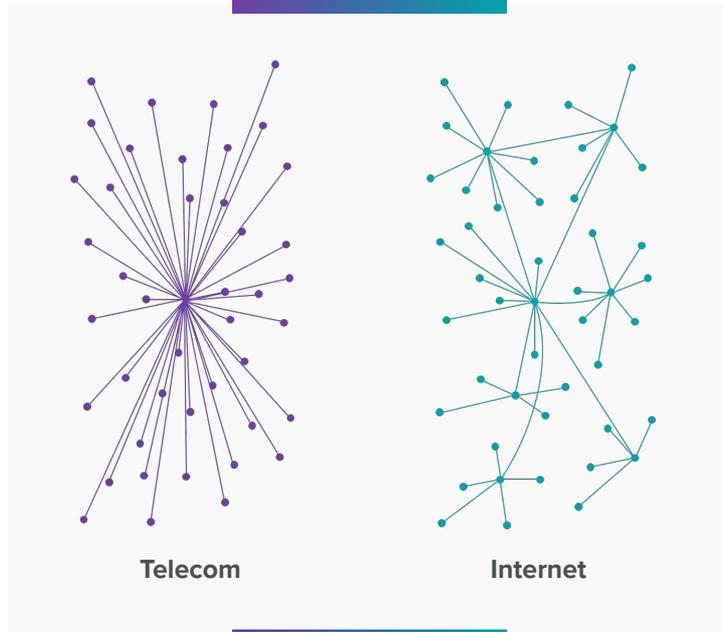
# The Promise of a Better Internet

Why policymakers should embrace  
the potential of web3



# web3 Can Be a Fresh Start

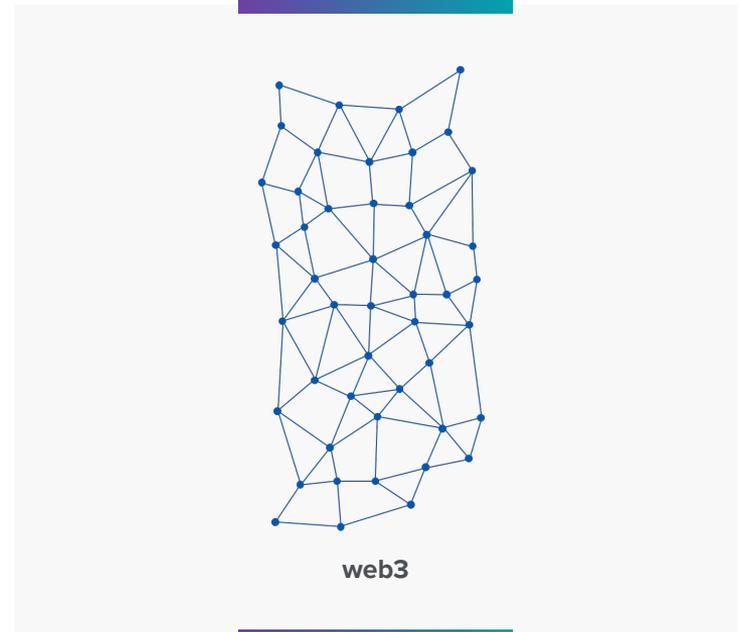
web3 makes systems that are stronger and more equitable



Telecom

Internet

Single points of failure and control



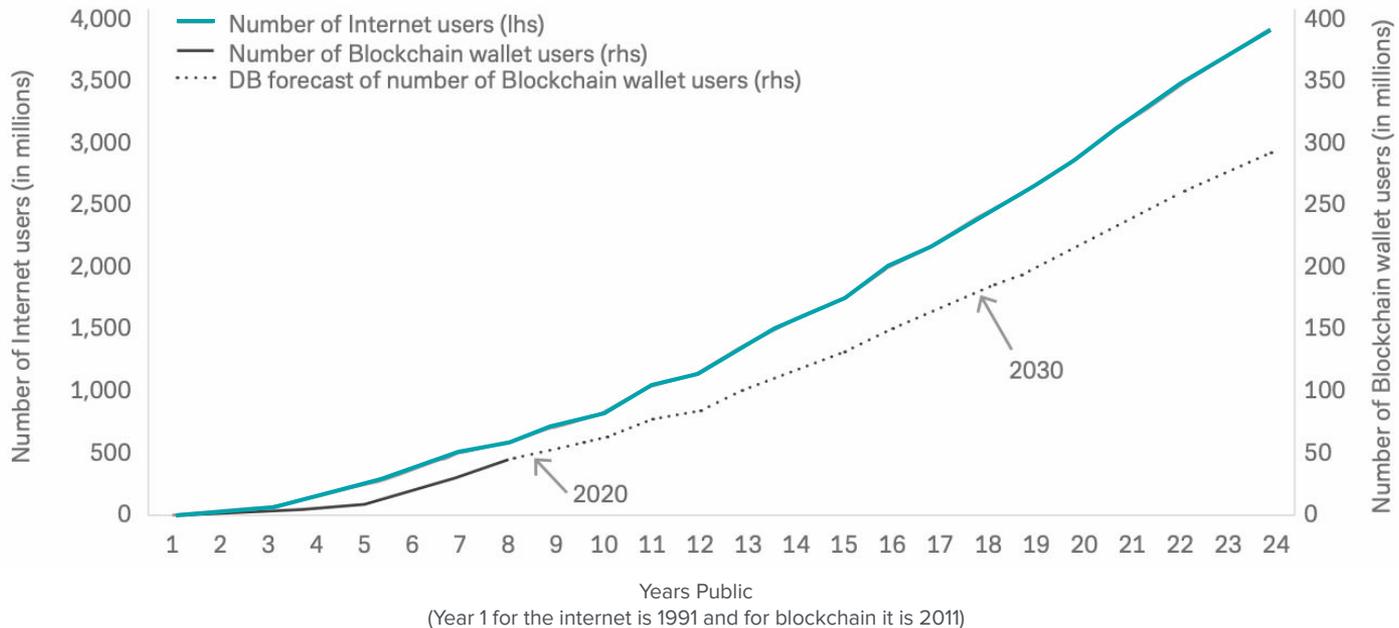
web3

Resilient and participatory

# Now is the Time to Set a Policy Agenda

When compared to internet adoption, today is our 1997 moment to set the agenda for how the next 20 years will play out

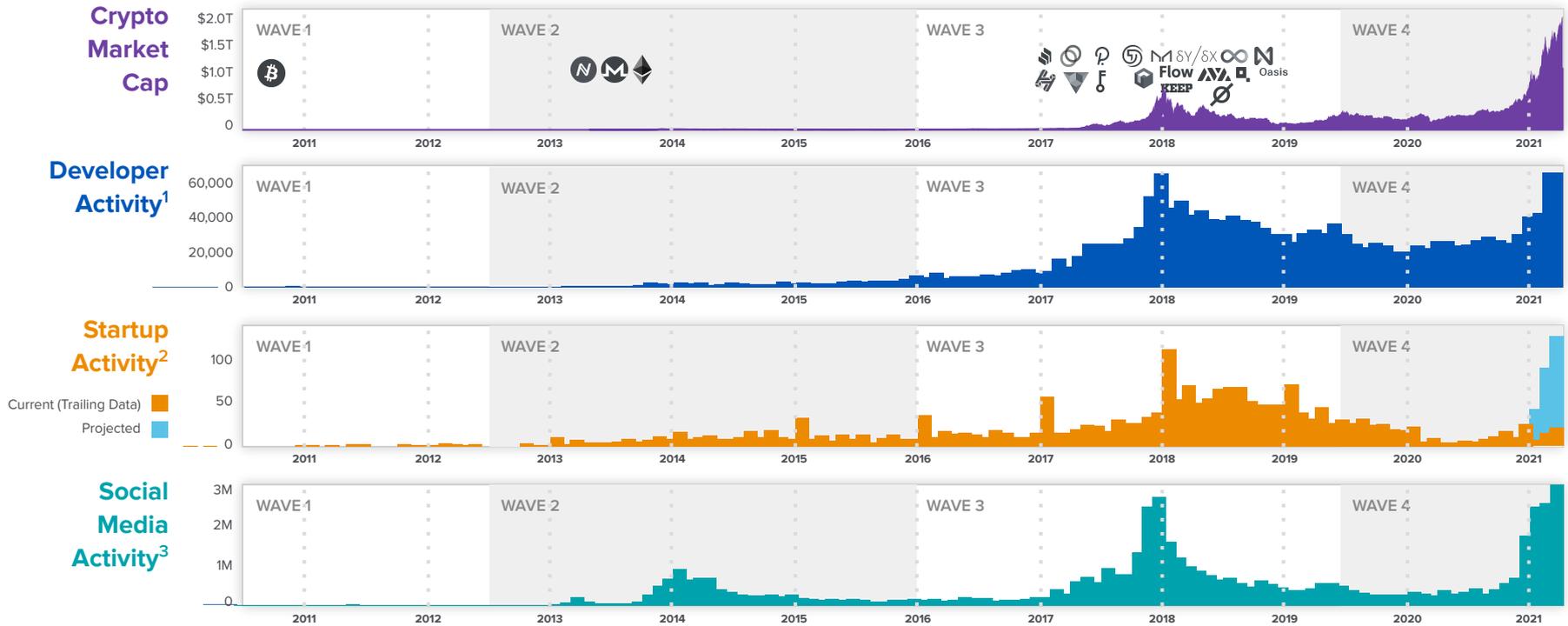
Adoption rates of cryptocurrencies and the Internet



Source: [Deutsche Bank](#)

# Now is the Time to Set a Policy Agenda

web3 adoption is escalating rapidly

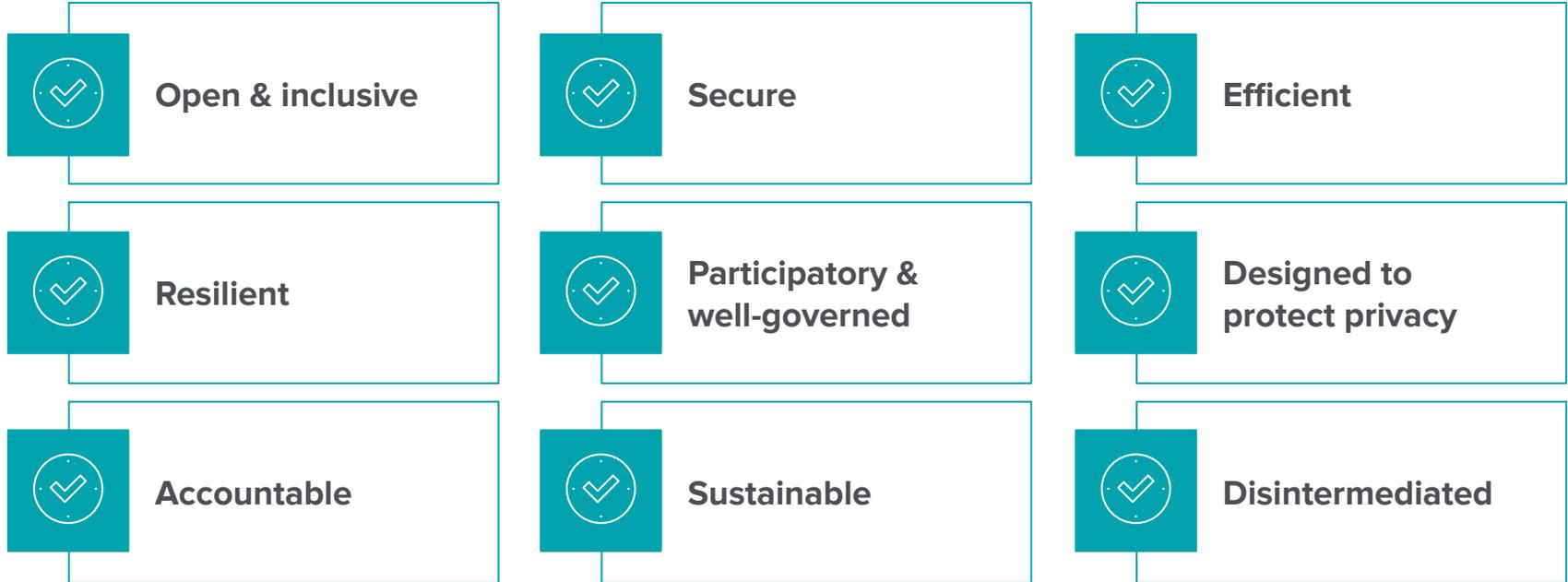


Charts provided herein are for informational purposes only and should not be relied upon when making any investment decision. Past performance is not indicative of future results.

<sup>1</sup> Developer activity based on crypto stars on GitHub. <sup>2</sup> Startup activity based on crypto first rounds funding via Pitchbook. <sup>3</sup> Social media activity based on comments on crypto-related subreddits.

# What Do We Want From the Next Generation of the Internet?

We can and should establish an affirmative vision for the role of technology in society



# How to Win the Future

An agenda for policymakers





**Whereas most technologies tend to automate workers on the periphery doing menial tasks, blockchains automate away the center.**

Vitalik Buterin

# Moving from an Aspirational to Operational Policy Agenda

Resilient

Secure

Equipped to protect privacy

## SECURITY

Embrace redundancy, small-scale and low-risk experimentation, and privacy-first networks

Participatory and well-governed

Open and inclusive

Accountable

## INCLUSION

Ensure equitable access to resources and information

Disintermediated

Efficient

Sustainable

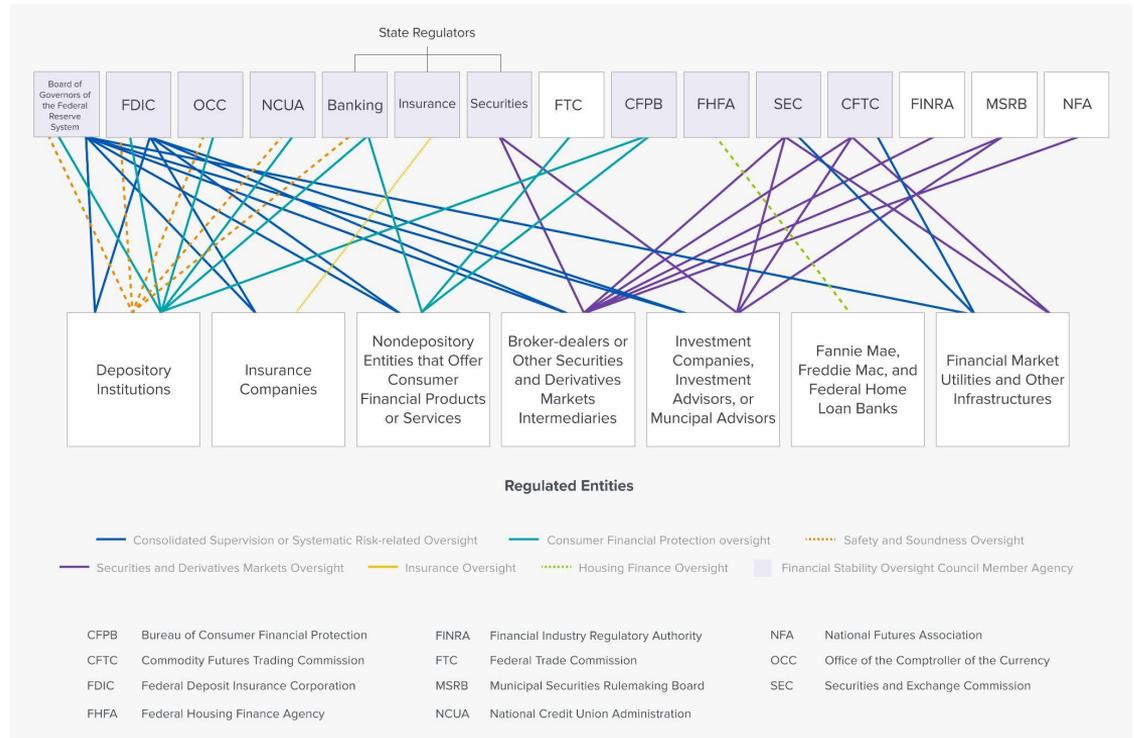
## EFFICIENCY

Promote systems that improve on existing, antiquated infrastructure

# Moving from an Aspirational to Operational Policy Agenda

<b>SECURITY</b> Embrace redundancy, small-scale and low-risk experimentation, and privacy-first networks	Pursue jurisdictional harmonization
	Participate in standards-setting for protocols
	Create regulatory sandboxes and safe harbors
<b>INCLUSION</b> Ensure equitable access to resources and information	Embrace a wide array of private sector solutions
	Leverage the strengths of web3 technology
	Bring regulation into the 21st century
<b>EFFICIENCY</b> Promote systems that improve on existing, antiquated infrastructure	Provide clear, fair tax rules
	Unlock the potential of DAOs
	Establish a national strategy for digital infrastructure and align web3 with sustainability objectives

# Example #1: Pursue Jurisdictional Harmonization



Source: [Government Accountability Office](#)

# Example #2: Bring Regulatory Regimes into the 21st Century

S-1 | d28795461.htm REGISTRATION STATEMENT ON FORM S-1

[Table of Contents](#)

As filed with the Securities and Exchange Commission on February 1, 2013

Registration No. 333

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20540

**Form S-1  
REGISTRATION STATEMENT**  
*Under  
The Securities Act of 1933*

Deliver to:  
(Name or other jurisdiction of incorporation or organization)

Address, including zip code:

Overseas address, including zip code:

Gordon K. Davidson, Esq.  
Jeffrey R. Vetter, Esq.  
James D. Evans, Esq.  
Franklin & Voss LLP  
361 California Street  
Menlo Park, California 94025  
(415) 958-8500

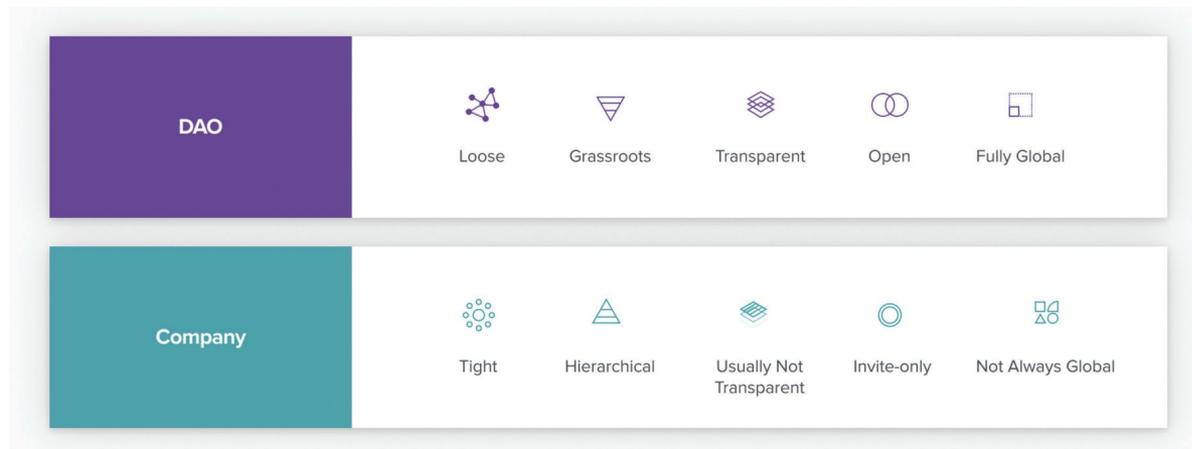
**ethereum**  
https://ethereum.org Verified

Overview Repositories 281 Packages People 78 Projects 1

Pinned

- go-ethereum** (Public)  
Official Go implementation of the Ethereum protocol  
Go 32.2k 11.8k
- EIPs** (Public)  
The Ethereum Improvement Proposal repository  
Solidity 7.2k 2.8k
- solidity** (Public)  
Solidity, the Smart Contract Programming Language  
C++ 11.8k 3k
- ethereum-org-website** (Public)  
Ethereum.org is a primary online resource for the Ethereum community.  
JavaScript 1.2k 1.3k
- remix-project** (Public)  
Remix is a browser-based compiler and IDE that enables users to build Ethereum contracts with Solidity language and to debug transactions.  
JavaScript 581 222

# Example #3: Unlock the Potential of DAOs



Source: Aragon

© 2021 Andreessen Horowitz. All rights reserved worldwide.

# Andreessen Horowitz

Backing the bold entrepreneurs building web3



## About Andreessen Horowitz (a16z)

We are radically optimistic about the potential of web3 to restore trust and enable new kinds of cooperation and governance. We believe these tools can help communities break through the stalemates that define too many aspects of public life and make collective decisions, including about critical issues such as how networks will evolve, what behaviors are permitted online, and how economic benefits are distributed.

Our team includes former officials drawn from across government. As the largest investor in the space, we know web3 — but we also understand public service. We see the potential of web3 as a force for good, and we are eager to work with policymakers to define a vision for how to use these powerful new tools to benefit society and ensure they realize their full potential.

# Who We Are



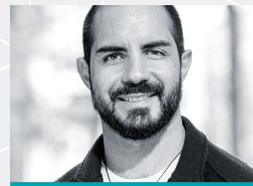
**Katie Haun**



**Chris Dixon**



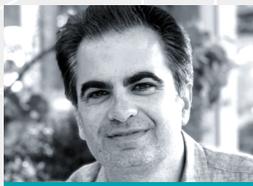
**Ben Horowitz**



**Ali Yahya**



**Arianna Simpson**



**Anthony Albanese**



**Tomicah Tillemann**



**Miles Jennings**



**Jai Ramaswamy**



**James Rathmell**



**Bill Hinman**



**Brian Quintenz**

# We Invest in the Leading Projects Across the Industry

## Blockchains & Scalability



chia



SOLANA

## Financial Services



MAKER



celo



valora

coinbase



eco

## Creator Economy & Gaming



OpenSea

Dapper



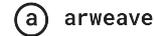
rally



FIELD GUILD



## Infrastructure



arweave



Aleo

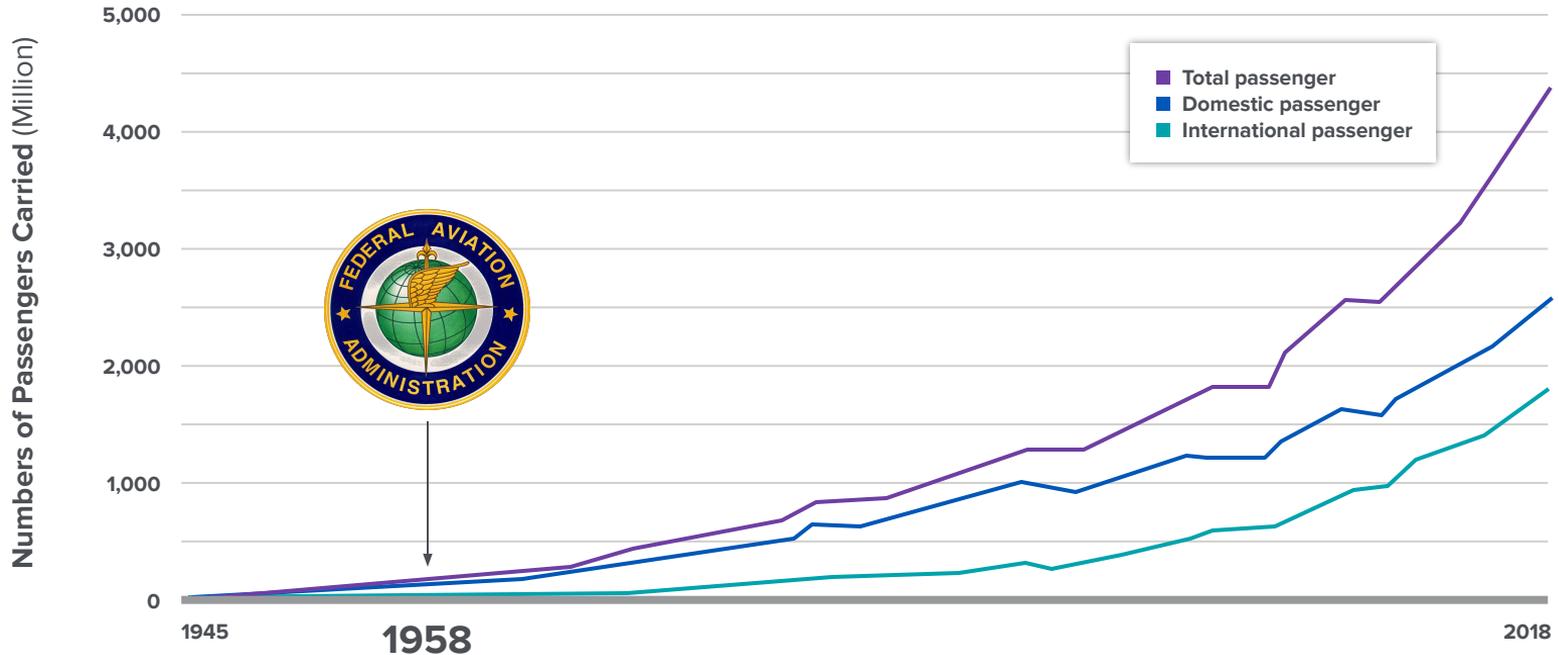


helium



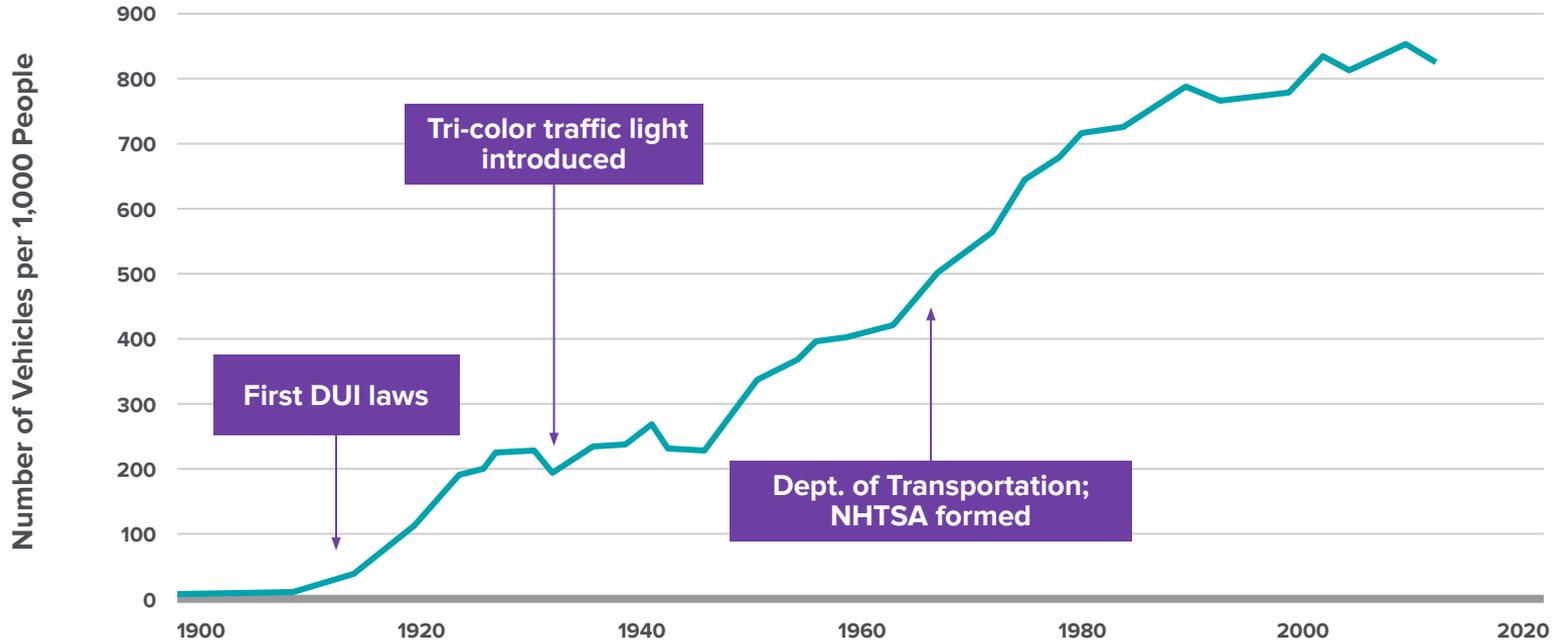
Protocol Labs

# World Passenger Traffic Evolution: 1945-2018



Source: [World Economic Forum](#)

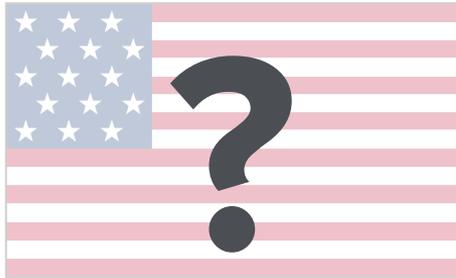
# Vehicles per 1,000 People in the U.S.: 1900-2013



Source: [Mercatus](#)

# Countries With Serious Digital Infrastructure Strategies

Establishing a strategy is the only way to secure our role as a financial and technological leader



Source: [World Economic Forum \(2016\)](#); [World Economic Forum \(2020\)](#)

The background of the image is a white field with a pattern of thin, light gray contour lines. These lines form irregular, wavy shapes that resemble topographic map lines, with some areas showing concentric circles and others showing more elongated, flowing patterns. The lines are distributed across the entire frame, creating a subtle, textured backdrop.

**andreesen.  
horowitz**

# Appendix: Case Studies

Building tomorrow's infrastructure & economy



# The People's Network

Digital infrastructure



## San Jose, 'Capital of Silicon Valley,' Wants to Fund Internet for Low-Income Households With Crypto Tokens

The money would come from coins mined on the Helium network.



# The Permaweb

Digital infrastructure



TOP NEWS JUNE 23, 2021 / 11:31 PM / UPDATED 3 MONTHS AGO

## Hong Kong's Apple Daily to live on in blockchain, free of censors

Fearing the security law could bring elements of China's great firewall to Hong Kong, limiting access to dissenting views, 21-year-old Ho - who works in tech and did not give his first name because of the sensitivity of the matter - began this week to upload Apple Daily articles on decentralised file storage platform ARWeave.



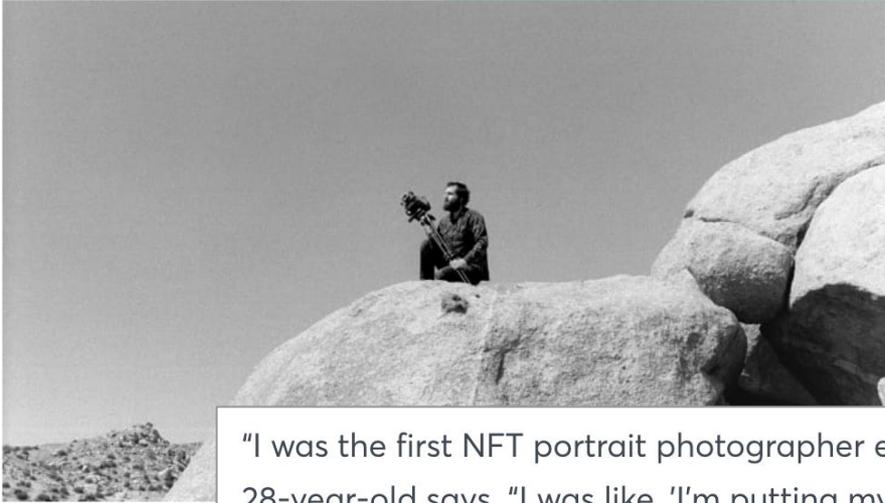
# Play-to-Earn

Economic opportunity



# The Creator Economy

Economic opportunity



"I was the first NFT portrait photographer ever on the blockchain," the 28-year-old says. "I was like, 'I'm putting my art on the blockchain because this is a tool,' since it allows artists to tokenize, own and profit from their pieces. "Why wouldn't any artists want to be on this?" Aversano asks.



The views expressed here are those of the individual AH Capital Management, L.L.C. (“a16z”) personnel quoted and are not the views of a16z or its affiliates. Certain information contained in here has been obtained from third-party sources, including from portfolio companies of funds managed by a16z. While taken from sources believed to be reliable, a16z has not independently verified such information and makes no representations about the enduring accuracy of the information or its appropriateness for a given situation.

This content is provided for informational purposes only, and should not be relied upon as legal, business, investment, or tax advice. You should consult your own advisers as to those matters. References to any securities or digital assets are for illustrative purposes only, and do not constitute an investment recommendation or offer to provide investment advisory services. Furthermore, this content is not directed at nor intended for use by any investors or prospective investors, and may not under any circumstances be relied upon when making a decision to invest in any fund managed by a16z. (An offering to invest in an a16z fund will be made only by the private placement memorandum, subscription agreement, and other relevant documentation of any such fund and should be read in their entirety.) Any investments or portfolio companies mentioned, referred to, or described are not representative of all investments in vehicles managed by a16z, and there can be no assurance that the investments will be profitable or that other investments made in the future will have similar characteristics or results. A list of investments made by funds managed by Andreessen Horowitz (excluding investments for which the issuer has not provided permission for a16z to disclose publicly as well as unannounced investments in publicly traded digital assets) is available at <https://a16z.com/investments/>.

Charts and graphs provided within are for informational purposes solely and should not be relied upon when making any investment decision. Past performance is not indicative of future results. The content speaks only as of the date indicated. Any projections, estimates, forecasts, targets, prospects, and/or opinions expressed in these materials are subject to change without notice and may differ or be contrary to opinions expressed by others. Please see <https://a16z.com/disclosures> for additional important information.