



Haym Salomon @SalomonCrypto

Aug 26 · 18 tweets · [SalomonCrypto/status/1563228298276065280](#)

(1/17) Programmable Money: [@ethereum](#)'s (First) Killer App

The World Computer provides us with capabilities never before possible: we can add code directly to the primitives that make up our financial system...

...and then, we can start assembling them together!

(2/17) Money is a concept older than history; by 2008 it had permeated our lives so deeply that it's hard to understand the world without reference to it.

Over all that time, money has basically flipped between being backed by shiny metal or government threats.



(3/17) In 2008, as the modern financial system collapsed, Satoshi Nakamoto published the [@Bitcoin](#) whitepaper.

A couple years later, [@Blizzard_Ent](#) nerfed siphon life and so [@VitalikButerin](#) created [@ethereum](#) in retribution.

Bitcoin is the promise, Ethereum is the delivery.

(4/17) The goal of blockchain technology is to create a computing environment using a decentralized, trustless network.

Bitcoin is a simple machine that has accounts and balances, and can process transactions that send value between them.

Ethereum is a general purpose computer.

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(1/19) Computer Science Fundamentals: Blockchain Computers, [@Bitcoin](#) and [@ethereum](#)

What is a blockchain computer and what makes it special? How did [@VitalikButerin](#) build on top of Bitcoin to create Ethereum? Why is Ethereum The World Computer?

This thread has answers!

The infographic is titled "Blockchain Computer State Systems" and is divided into four main sections:

- State Transition Machine:** Shows a sequence of states (State N, State N+1, State N+2) connected by "State Transition Function" arrows. A "Transaction X" is shown as an input to the transition function.
- Bitcoin State Transition System:** Shows a "State" table with columns "Account" and "Balance". A "Transaction" table with columns "Spend" and "Signature" is shown as input to a "State Transition Function" arrow, resulting in a new "State'".
- The Universal State Machine:** Features a red Turing Machine tape with binary code (10110101010101010101010101010101) and a red Turing Machine head. Text below reads: "A Turing Machine is a mathematical model of computation used to investigate the theoretical limits of computer science. Using a small set of simple rules, the machine is capable of simulating ANY computer algorithm." Below this, it states "Turing Complete = system can solve any computational problem".
- Ethereum State Transition System:** Shows a "State" table with columns "Account", "Text", "Date", "Signature", "ETH", and "Data". A "Transaction" table with columns "Text", "Date", "Signature", "ETH", and "Data" is shown as input to a "State Transition Function" arrow, resulting in a new "State'".

10:38 PM · Aug 5, 2022

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(5/17) That's how you should understand [@ethereum](#): a shared computer, running across a global network of untrusted nodes, economically secured by \$ETH.

Why?

- anyone can build on it, and anyone can build on top of anyone else's work
- it provides internet-native money

(6/17) Building on The World Computer requires a focus on Composability.

A highly composable system provides components that can be selected and assembled in various combinations to satisfy specific requirements (both current and future).

(7/17) For example, take tokens: conceptually, a token is just an app running on The World Computer.

Imagine 1000s of coders creating bespoke apps that they call tokens. Exchanges would have to carefully integrate each one, one at a time.

Forget De-Fi entirely.

(8/17) Instead, Token Standards provide the template upon which developers can build. These templates provide the properties and characteristics that one must have in order to be considered a token.

All a dev needs to do is fill in these functions and hit deploy.

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(1/15) Token Standards and Composability

ERC-20, ERC-721, ERC-1155, ERC-4626...

ETC - WTF

Confused what **@ethereum** token standards are and why they matter? Interested in knowing which tokens are for what purpose? Want to understand the big picture?

This is the thread for you!

Ethereum Token Standards			
ERC - 20	ERC - 721	ERC - 1155	ERC - 4626
Fungible Tokens	Non-Fungible Tokens	Multi-Token Standard	Tokenized Vault Standard
Most basic token standard, used to create interchangeable tokens	Each NFT is unique, used to create unique items, digital art, etc. from others in the same collection	A single interface that manages any combination of multiple token types (fungible, non-fungible, etc.)	A standard that represents a multi-token vault containing ERC-20 tokens, deposits, interest, etc.
Tradeable virtual currencies, decentralized finance (DeFi), digital art, etc.	Collectible art, digital art, property, tokens (avatars, items, etc.)	Alternative to ERC-20 and ERC-721, more game-like, interoperable	Lending markets, interest-bearing tokens, applications

5:55 AM · Aug 1, 2022

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(9/17) By conforming to a token standard, a token can immediately access a ton of De-Fi protocols (also World Computer apps):

- LP/swap on [@Uniswap](#)
- lend on [@SiloFinance](#)
- trade on [@LooksRare](#)

All without any custom integrations; the apps already know how to communicate.

(10/17) But this isn't just about easy development and access to marketplaces. This is about creating programmable property, assets and money.

Lending protocols and AMMs came first because they have direct corollaries in the real world.

What's interesting is what came next...

(11/17) The ve-token system is the first example of a technology that was inconceivable before The World Computer.

Built upon the technologies provided by many different protocols, the system leverages these money Legos to build a system that no single builder could have made.

 **Haym Salomon**
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(1/19) De-Fi 101: Tokens

From **\$ETH** to wrapped-ve-token, your guide to the money-legos that builders are using to create the future financial system



De-Fi Tokens			
COIN	GOVERN	veTOKEN	wTOKEN
Liquid ✓	Liquid ✓	Liquid ✗	Liquid ✓
Utility ✗	Utility ✗	Utility ✓	Utility ✗
Votes ✗	Votes ✓	Votes ✓	Votes ✗
Yield ✗	Yield ✗	Yield ✓	Yield ✓
ETH (Ethereum)	SNR (Maker)	OPV (Compound)	wOPV (Compound)
URBC	ASA (Aave)	PGO (Poa)	plzPGO (Poa)

(12/17) Core to understanding the ve-token revolution is understanding “bribing” (aka voting incentives).

This process is how De-Fi expresses the economic value of the voting power of a ve-token, and provides credibly neutral monetization channels.



(13/17) Look at Trad-Fi; tokens are ROUGHLY analogous to stocks. Today, most stockholders ignore their voting power or delegate to a proxy.

Imagine a world where a stockholder could monetize that power.

The stock market is centuries old, De-Fi is 2... but De-Fi did it first.

(14/17) Not sold? Let's talk about stablecoins.

First, we borrowed from the real world; stablecoins mirrored the value of real-world cash.

Today, stablecoins are evolving into a new principle: as a protocol's TVL rises, it has a should try to return liquidity back into De-Fi.

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(1/21) **\$USDC, \$FRAX, \$DAI, \$sUSD, \$MIM**, now **\$GHO**, soon **\$dpxUSD**, wen end???

Everyone is issuing their own stablecoin. Why are they doing it? What does it mean? Is this good for De-Fi?

Read on to learn more about stablecoins and their role in De-Fi.

8:20 PM · Jul 7, 2022

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(15/17) Sophisticated programmable money has permeated through much of De-Fi. Protocols like [@dopex_io](#) (Atlantic Options), [@UmamiFinance](#) (Delta Neutral Vaults), and so many more are developing products that combine different money legos to create something brand new.

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(1/14) **@ethereum**, Property Rights and Programmable Money

Why bother with The World Computer? What can Ethereum do that Trad-Fi cannot? Why are devs and degens so excited about being on-chain?

If you have questions on what's so special about **\$ETH**, this thread is for you!

3:17 PM · Aug 1, 2022

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(16/17) Back in Corporate-Fi, I used to manage \$10+B/year in cash flow. Even at the highest levels, nothing works... almost everything is smoke and mirrors.

But I believe there is a better way. First we need transparency and credible neutrality.

Then we need innovation.

(17/17) This is just the beginning. De-Fi is so young, programmable money is practically an infant. It's impossible for a single person to project out.

But that's the thing about [@ethereum](#): no single person has to. Every person can contribute. Today and in the future.

Forever.

Haym Salomon
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(1/17) [@ethereum](#) Endgame: The Internet Economy

Trying to understand crypto, Ethereum and De-Fi in the context of history?

Read on to learn how I think the world is changing.

7:24 PM · Jul 8, 2022

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6:14 PM · Aug 26, 2022

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