Token Engineering Academy

Token Engineering Weekly Reads

Welcome to #TEWeeklyReads

August 4 Edition

In this week's TEWeeklyReads we are mapping out the field of token engineering, based on our conversations with researchers, practitioners and crypto projects at EthCC week. The space has evolved hugely, and our goal is to advance its development with gatherings such as the EthCC Token Engineering Track Day on July 19 and our Token Engineering Barcamp event on July 22.

Before you dive in, check out the latest grants round for Token Engineering public goods run by TE Commons!
The Token Engineering Grants Round is now open for applications with $25k in $TEC up for grabs!

Timeline:

- Applications open Aug 1st - 9th
- Application review Aug 10th - 14th
- Open for donations Aug 15th - 29th

If you are part of a project, or know of one that's contributing to the token engineering space, this is an opportunity you don't want to miss. For more information you can check the TE Grants Portal, seek support on TEC's Discord or reach out to grants@tecommons.org.

Now, dive deep, and enjoy the read!
@akrtws and the TE Academy team

1/ You name it - the many names for an emerging field

The term "token engineering" was first mentioned in 2018, as a field drawing from many disciplines. Token engineering is defined as the design, verification, and optimization of token-based systems.

Five years later, many related fields have emerged, sharing two common subjects

of exploration: the economic dimension of crypto systems and tokens as programmable, trackable representations of assets and rights.

Below is an overview of the current landscape. Note that our goal is not to provide a general classification. Instead, we aim to clarify the terms coined in the ecosystem, provide a brief definition, and reference key players.

- **Cryptoeconomics:**
  First mentioned in 2014/2015, originally defined as "a formal discipline that studies protocols that govern the production, distribution and consumption of goods and services in a decentralized digital economy" (Vlad Zamfir), today focuses on cryptoeconomic primitives for novel kinds of economic mechanisms and games in cryptographic systems, mainly driven by protocol R&D, see the CryptoEconLab Day program below
- **Supply-side Tokenomics**:
  Focusing on token supply, token sales, and token exchange listings as a new fundraising instrument, see "What is your token worth?" Roderick McKinley
- **Demand-side Tokenomics**:
  Driving token utility and demand, drawing from Web2 lean startup and platform design methodologies, see "Demand-side Tokenomics" by Nate/eatsleepcrypto.eth
- **Protocol Design, Tokenology:**
  Newest terms for a holistic approach to combine product/service design, ecosystem value capture, growth, and governance, see "Tokenology: Moving beyond 'tokenomics'", a16z and "Value Capturing Theory", Vasily Sumanov
- **Protocol Optimization/Incentive Optimization**:
  Incentive and growth optimization, drawing from quantitative finance, see "Long-term Growth Strategies using Token Incentives", Gauntlet
- **Risk Management and Token Engineering Verification**:
  Monitoring risks and detecting vulnerabilities beyond the logic of code, see "Token Engineering Verification: from TokenSPICE EVM Simulation to AI-Powered CAD", Trent McConaghy and
  "Optimizing Token-based Systems with Risk Data Science", Jan Osolnik
- **DAOs/Governance**:
  Token-based ownership and governance for cyber-physical systems and new online institutions, see BlockScience and Metagov
- Additionally, **crypto analysts and regulators** drive the development of standardized metrics for token valuation and measuring network health, see "Leveraging On-Chain Data to Assess Web3 Protocol Health", Messari

Undoubtedly, all these different angles to define token system design and optimization are viable. Stakeholders in the sector are competing productively for the best and most valuable approach.
However, the downside of this variety is that none of the fields mentioned above have achieved a widespread common understanding. Crypto projects face difficulties in hiring and struggle in defining the necessary skills and services needed for their project. And most important: compared to budgets spent for software development and audits, the economic design and risk sector is hugely under-financed while being over-fragmented.

2/ Token Engineering Barcamp Recap

Our Token Engineering Barcamp event brought together 150 brilliant minds, all passionately discussing and collaborating on cutting-edge token engineering topics. With 15 captivating sessions covering many sub-domains mentioned above, the energy was next level! Stay tuned for a write-up in the works, capturing all the insights throughout the event.

For now, find all the sessions with speaker names and references for further reading in this overview.

- Modeling Bonding Curves with Conding by Rex and Ygg_Anderson
- Category Theory: Turn a DAO or a Protocol Process Diagram into a Tokenomics Model with Stanislav Kapulkin
- Digital Assets Value Capturing Theory with Vasily Sumanov
- Token Exchange Games with Viroshan Naicker

- AI-powered Token Engineering with Rohan Mehta
- Helping Projects evaluate their Tokenomics with Tesa Ho
- Demand-Side Tokenomics with Nate eatsleepcrypto.eth
- Measuring GDP of Crypto Networks with Lisa JY Tan
- Build Your Token Sale Offer - LIVE! with Roderick McKinley
- Pet the Dog: Alternative Incentives Models with Andy Boyan
- Navigating Token Engineering: Exploring Perspectives in a Moving Debate [FR] with tx, Morpheus
- TECKY a Utility Token for the TE Ecosystem with Rohan Sundar
- Empowering Underrepresented Learners in Token Engineering with Madhuri Rahman and Lena Hierz
- NEW: Mechanism Design from Scratch with Kris Paruch
- Crypto Asset Valuation with Jesus Perez Sanchez

Thank you to all our speakers who submitted materials!

3/ CryptoEconLab Day Paris Recordings Available Now

CryptoEconLab is a crypto-native economic research firm unlocking crypto's economic challenges. Their team hosts four events a year to highlight cryptoeconomic research and case studies. We're happy to share that the recordings from their sessions during EthCC Paris are now available. Check them out below.

Case studies:

- Gas Gentrification and Sprawl: Urban Planning of FVM and IPC - Axel Cortes Cubero
- How to put a token at the heart of its economy - a case study with Qredo - Maria Silva & Ulla Rone
- Hyper-fragmented Liquidity, Adversarial Mempool & UniswapX - Xin Wan

Cryptoeconomic Primitives/Research:

- Time is Money: Strategic Timing Games in Proof-of-Stake Protocols - Barnabé Monnot
- Credible Decentralized Exchange via Verifiable Sequencing Rules- Matheus Venturyne Xavier Ferreira
- Automated Market Makers and the Future of Perpetual Options: A New Era in DeFi - Jesper Kristensen
- Multidimensional Resource Pricing with Application to EIP-4844 - Akaki Mamageishvili

Panel Discussion:
The Economics of Tokenized Infrastructure - Mike McCoy, ZX Zhang, David Sneider, Jacob Greene, Kris Paruch

Find the full YouTube playlist here.

More links:
Token Engineering Track Day at EthCC YouTube Playlist @tokengineering
Token Engineering Barcamp Resources @tokengineering

TE News via Crypto Twitter:

Web3 Economic Models
Public Goods: Gitcoin launches new low-cost L2 OP Chain to generate sustainable funding for public goods @pgn_eth
Check out the 13 ETHGlobal Paris hackathon finalists (from total 321 submissions), especially @communitybound_, community-bound tokens that can only be transferred among community members for reputation, community merit scores, and coordination games @ETHGlobal
Time to say goodbye to TCR Party @TCRPartyBot
Autonomous agents in Web3: Reinforcement learning agents for Indexers to automatically compete on pricing @0xsamgreen @TomaszKornuta @RezBrandon

Register by Aug 5 for MEV-share: a protocol enabling users, wallets, and dapps to capture the MEV their transactions create. @0xbn254

Mechanism Design & Research:

New game-theoretic model for MEV-boost auctions: designing efficient mechanisms for MEV extraction and redistribution. @soispoke

Modeling MEV-boost auctions: a fighting chance against centralizing vectors @soispoke

Flashbot CTF starts August 5: 10 challenges in 48 hours. @SheaKetsdever @epheph

If somebody steals your tokens, you can steal them back. It only costs you gas. @0xQuit

Transparency

Explainer: Crypto market manipulation model that produces the $10b+ valuations for start-ups @AriDavidPaul

Regulation

Update on the US stablecoins bill: a comprehensive regulatory framework for stablecoins @TheBlock__

FSB Global Regulatory Framework for Crypto-asset Activities @EuCInitiative @FinStbBoard

This newsletter is made possible thanks to the funding received from Optimism's RetroPGF and TE Commons! 🚀💜

For the latest Token Engineering research, news and trends we invite you to follow TE Academy on Twitter.

Subscribe

If you've found your way here via Twitter you can subscribe here to have #TEWeeklyReads delivered direct to your inbox.

TE Academy

conectopia UG (haftungsbeschränkt), c/o FullNode, Skalitzer Strasse 85-86, 10997, Berlin

Unsubscribe
or Update Your Contact Details