

The Past, Present and Future of ICOs and Crypto-Economic Token Models

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Agenda



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- Who am I
 - The Past
 - The Present
 - The Future
 - Demo



Who Am I



- **Nagu Thogiti (督一心)**

- Mathematician, Founder Programfy & 314.AI

- Blockchain Protocols & Security Engineering
- Advisor and Smart contracts auditor (GoToken, Rublix, WandX, Science, Protos, Nuggets, DiamondChain, etc.)
- 20+ years in Machine Learning, AI and data systems design
- 15+ years of leadership in scalable data driven marketing and marketing technology systems and data architectures
- Tinkering with DLT since 2012
- Executive Advisor Viking Cruises
- University of Southern California, Los Angeles, USA
 - Ph.D Applied Mathematics (on going)
 - Masters in Applied Mathematics
 - Masters in Computational Science & Engineering
- Indian Institute of Technology (IIT)
 - Bachelor of Technology

Professional Certifications & Associations



- MIT Certifications: FinTech, Cybersecurity, Big Data, IOT
- Ethereum Developer, Blockchain Consultant & Advisor on Cryptoasset projects
- Google/Udacity: Artificial Intelligence, Deep Learning, Self Driving Cars
- School of AI: Computer Vision
- American Mathematical Society Member, IEEE member

Disclaimer



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- This is not a financial advice, or a legal advice or an investment advice.
 - Crypto currencies and tokens are very risky digital assets and you may lose all your money in a very short time period.

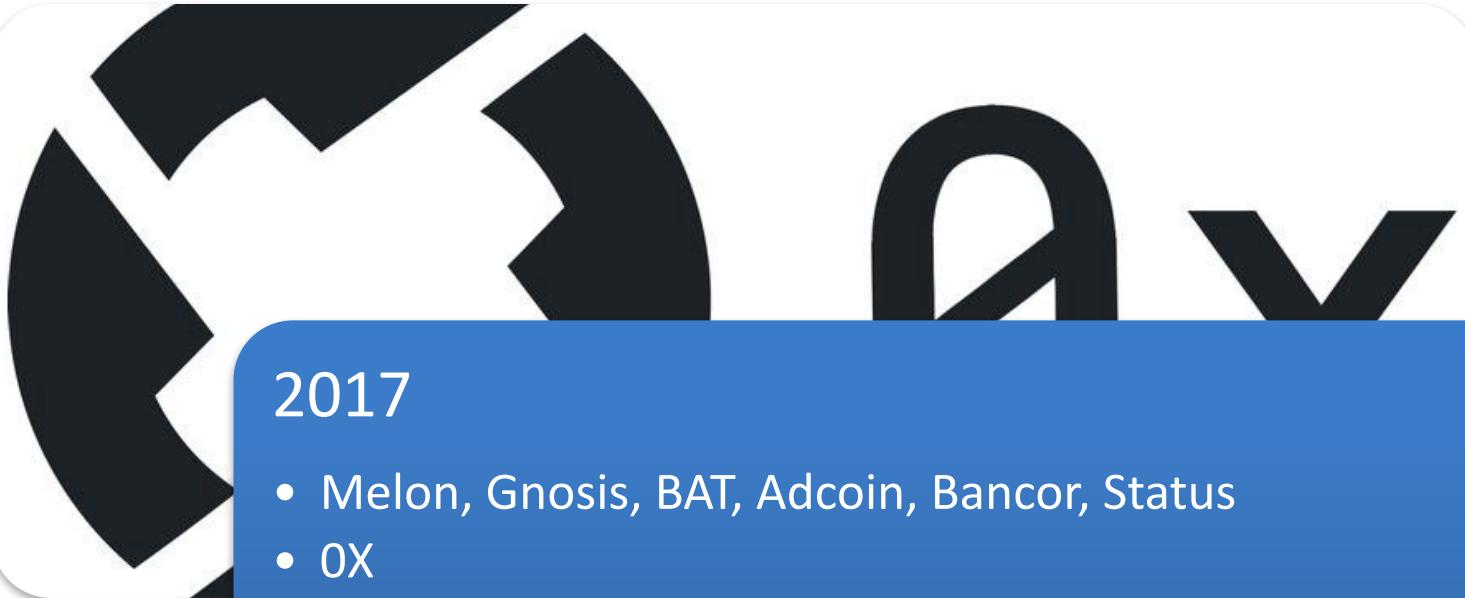
The Past



The Past



The Past



2017

- Melon, Gnosis, BAT, Adcoin, Bancor, Status
- 0X
- VCs, Deep discounts
- A lot of sale mechanics issues
- Focus on compliance (KYC/AML)
- VCs dominance

The Present



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- You raise multiple private sale rounds from VCs, Angels and accredited investors
 - Show case some traction on your blockchain startup
 - Manufacture some utility around the token
 - You do a public sale
 - Exclude USA, China, etc. (depends on the project and jurisdiction)
 - Recreated the current VC startup financing model

The Future



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- Security Tokens
 - Bonds -> claims on fixed assets
 - Equities -> claims on excess cash flows
 - Tokens -> claims on use of assets & will become part of corporate capital structures
 - Two types
 - Tokens as Securities from the beginning
 - Exemptions
 - Regulation D Rule 506(c), Regulation S, Regulation CF, Regulation A+, and Rule 147.
 - If a startup is "offering something that depends on the efforts of others, it should be regulated as a security."
 - Whether a token qualifies as a security could also change as the industry evolves. Just because it's a security today doesn't mean it'll be a security tomorrow, and vice-versa."

The Future



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- Big problem
 - Do you need securities brokerage account to use the security tokens?
 - Most brokers and their custodians don't have any incentives to integrate with blockchains; it means the incumbents can kill the industry by not integrating. They will prevent network effects of use of the tokens.
 - This may lead to huge loss from innovation and market opportunity perspective.

The Future



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- “Not-security” Tokens
 - They either start as securities or issued under an exemption
 - Pure “not-security” tokens are tokens that aren’t clear securities from the beginning and where the network is already live. There is no promise of offering that depends on others.
 - There is also a proposal for more simplified definition “non-security tokens”

The Future



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- Raise a private sale round from accredited investors then bootstrap your community through bounty/work/rewards token or airdrop
 - Meaningful wider distribution
 - Get your token in the hands of the core target audience/users
 - Examples: Filecoin, Cofound.it, Rublix, Variabl

The Future



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- DAICO
 - DAO + ICO, best of both worlds
 - DAICO smart contract starts in contribution mode until the fundraising time period runs out
 - Tap (ETH per sec or USD per sec) -> funds released to the development team (say monthly basis)
 - Voting on raising/lowering/closing down the tap
 - Minimize the issues related
 - Fraud, bad actors, game theoretic exploits, bribing, 51% attack damage, etc.
 - Still needs to address
 - Exploits for private sale, public sale, pure evil, automating the tap
 - Variations
 - Based on a stable coin
 - Two separate tokens: liquid token and control token
 - DAO + Iterative Investment with no ICO
 - Design better payoff matrix (incentives matrix) for the team and contributors using game theoretic approaches

The Future



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- Price discovery
 - Very underutilized
 - Combine Game Theory, Econometric auction models, mathematics to discover price of initial coin offerings
 - Fixed incentive structures VS Time dependent secondary price auction model incentive structures

Regulation - USA



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- Where the US regulation is heading?
 - “Pure Crypto Currencies”
 - Security tokens
 - Not-security tokens
 - Exchanges
 - National exchanges
 - Alternate Trading systems (ATS)
 - Consensus on not to facilitate the transactions of unregulated securities
 - May be a new federal law to replace the state-wide Money Transmitter Business licenses (for each State license) with one federal law
 - New Blockchain task force under FTC

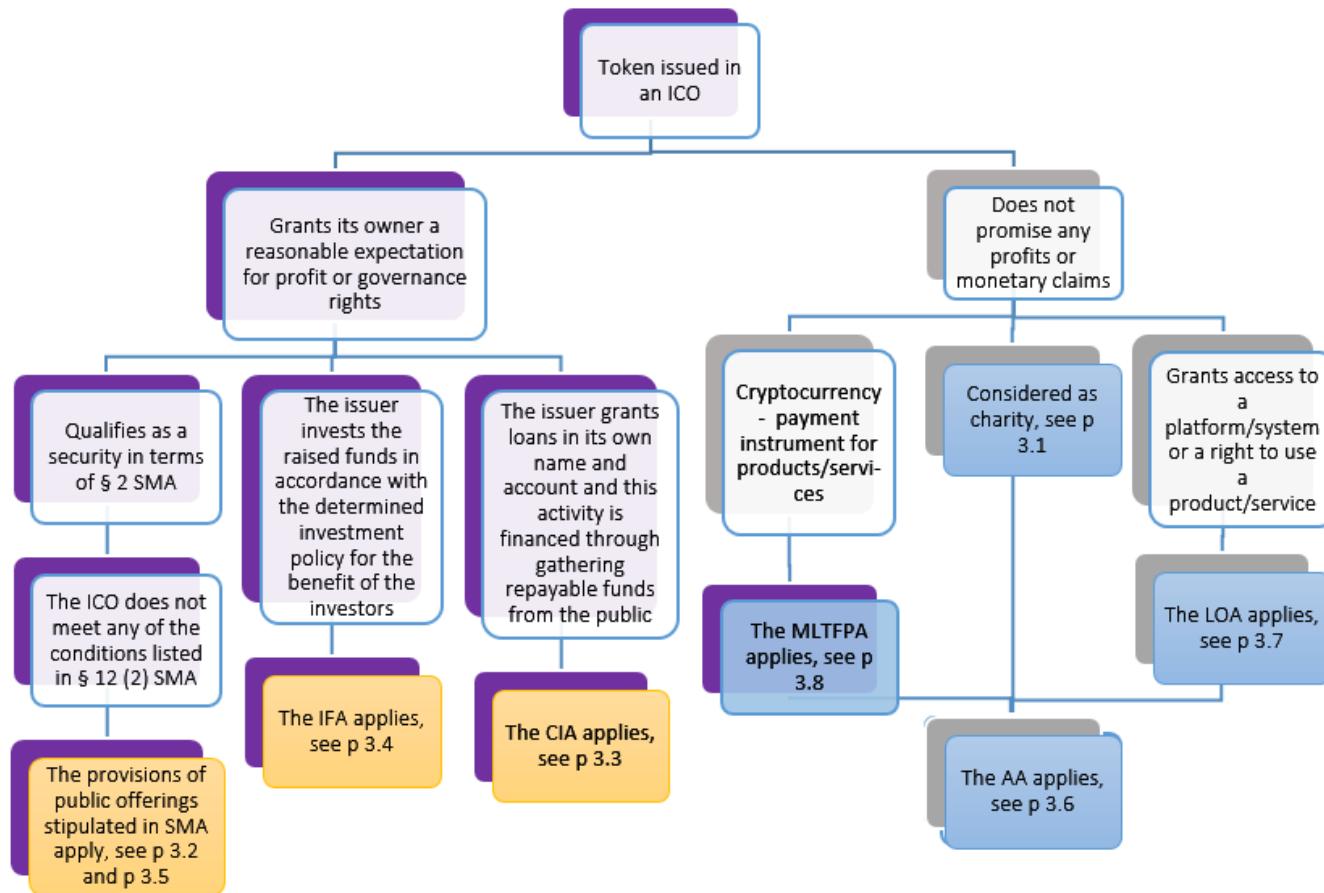
Swiss Legal Framework of ICOs



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- Payment tokens
 - Asset tokens
 - Utility tokens

ICOs Regulatory Framework Estonia

- <http://www.fi.ee/index.php?id=22715>

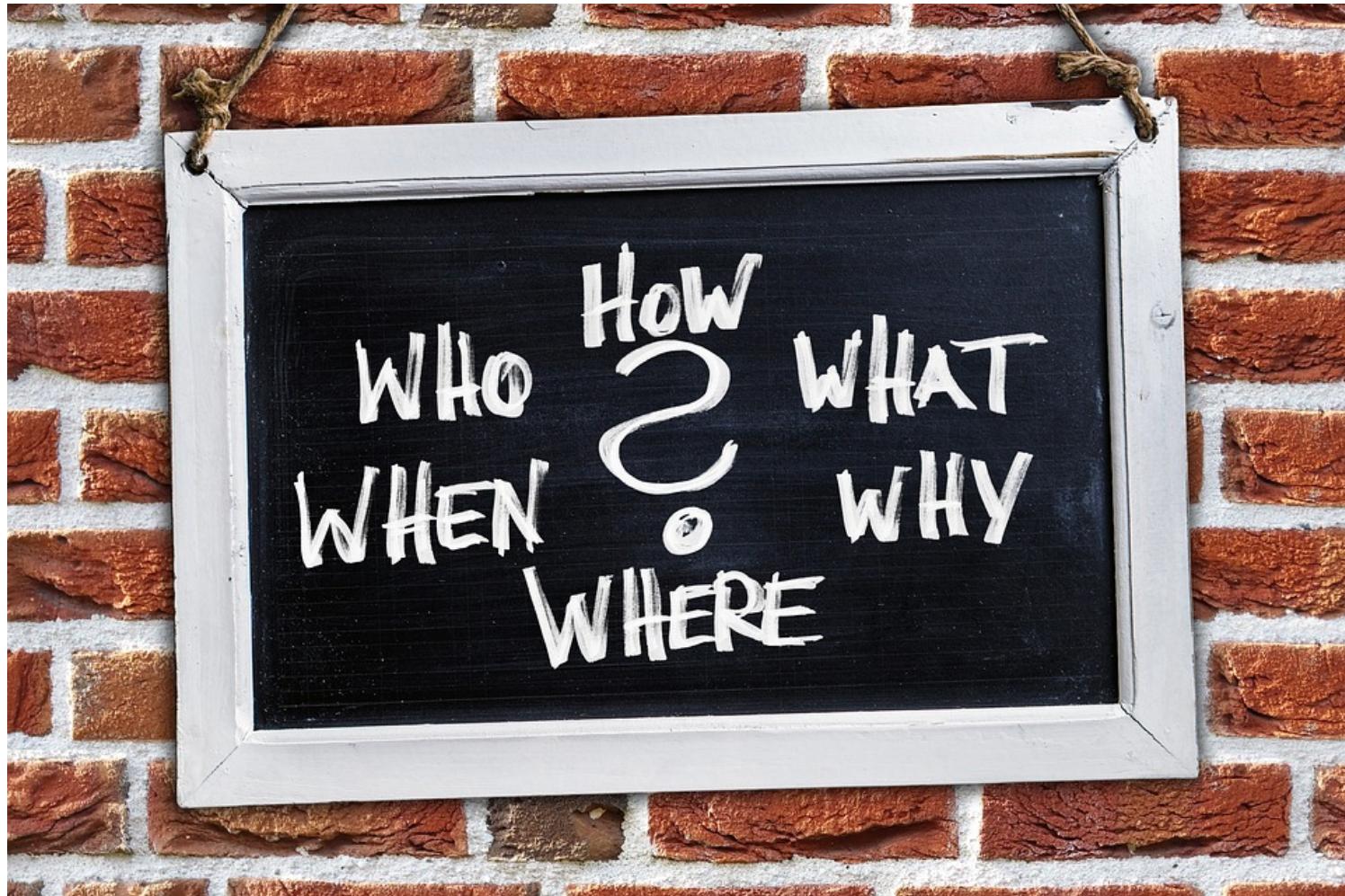


I have personal questions, how can I contact you?



- Nagu@Programfy.com

Q&A



Part II - Demo

Uniform Price Dutch Auction Token Model



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- Price discovery
 - Deploy a compliant ERC20 token
 - Deploy a uniform price Dutch Auction for Token Sale
 - Execute the smart contracts
 - Finalize the auction
 - Distribute the tokens