



# The Token Economy

*at the TechConnex Blockchain Peer Group*

By Marc Lijour

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or find in the folder 2019 TechConnex - Blockchain Peer Group at

<https://github.com/marclijour/presentations>



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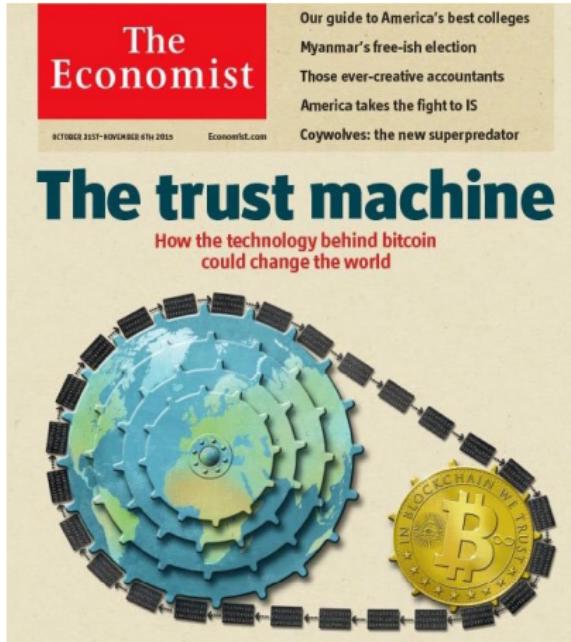
4 Token Economy

# Last episodes

- ① Session 1: Intro to Blockchain (hands-on)
- ② Session 2: Identity and Blockchain



# The Trust Machine



# But how does it work?

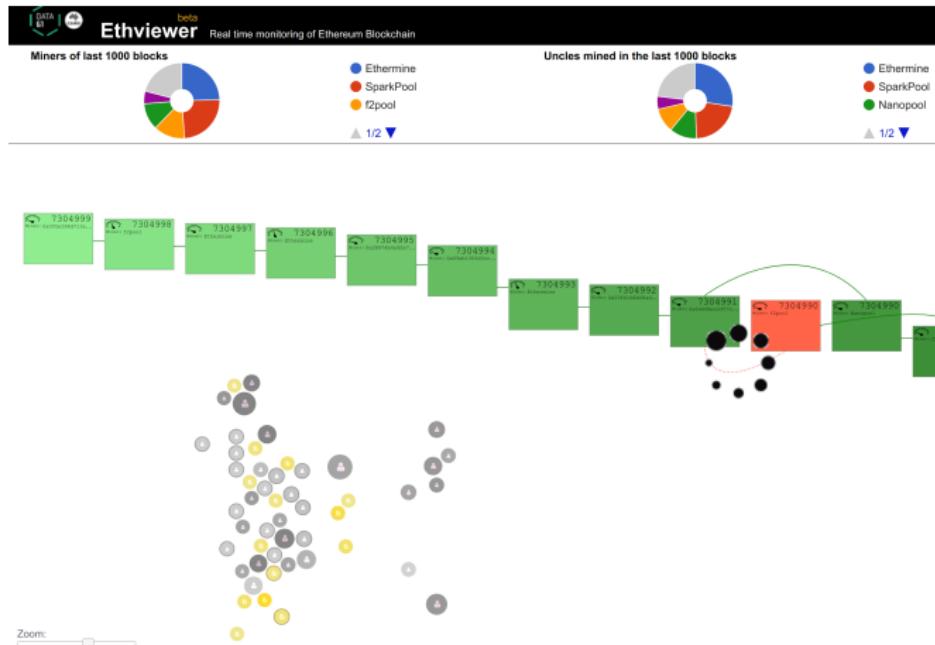


Figure: Source : <http://ethviewer.live>

# Reference books

## Blockchain in practice

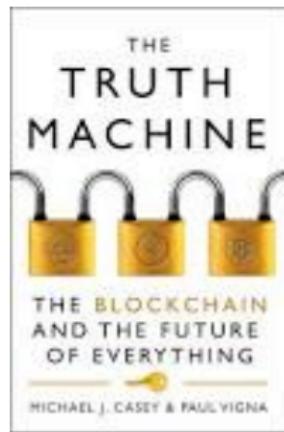


Figure: Book from Vigna and Casey,  
2018

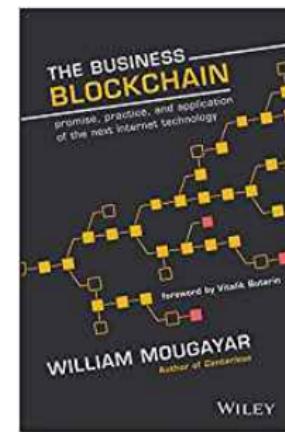


Figure: Book from Mougayar, 2016

# Ultimate references

The must-read white paper from legendary Satoshi Nakamoto: *Bitcoin: A Peer-to-Peer Electronic Cash System* ([2008](#)),

the Ethereum white paper from home-town Toronto Vitalik Buterin: *A Next-Generation Smart Contract and Decentralized Application Platform* ([2013](#)),

and the yellow paper authored by Prof. Gavin Wood: *Ethereum: A secure decentralised generalised transaction ledger* ([2014](#)).

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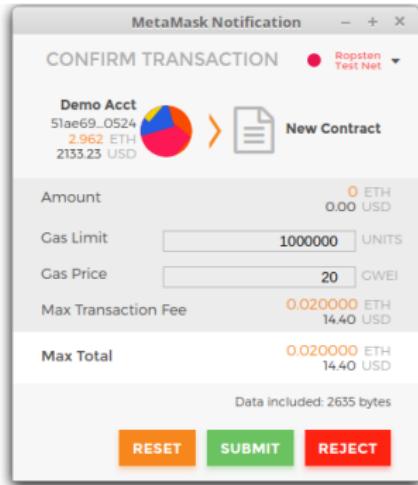


# Create your own (ERC-20) token

## Create Token

Create Token Contract with the following parameters.

100
Marc's Coin #2
8
MLD
<input type="button" value="Create Token"/>



- ① Use the Token Factory Dapp at <https://tokenfactory.surge.sh/#/factory>
- ② MetaMask will pop up (see picture above)
- ③ Submit the transaction (on the Ropsten Testnet)
- ④ Check your transaction on <https://ropsten.etherscan.io>

# Check your Smart Contract

A screenshot of a blockchain transaction status card. At the top, there are two tabs: "SENT" (highlighted in grey) and "TOKENS". Below the tabs, the date and time are displayed as "December 29 2017 04:49". To the left of the date is a document icon with the number "2" next to it, indicating the count of contracts published. To the right of the date is an orange copy icon with the number "0" and the text "ETH" next to it, indicating the amount of Ether sent.

- ① Select the “Sent” tab
- ② Check the orange Copy icon (Tx Hash)
- ③ Click on “Contract Published”
- ④ That should bring you to Etherscan (see next page)



# Watch your Token



- ① Click on the “Add Token” button
- ② Wait for the next window (picture on the right)
- ③ Copy your contract address (from Etherscan)
- ④ Go back to your Token Factory tab, which should show an UI to interact with your contract or go to the URL:  
<https://tokenfactory.surge.sh/#/token/0x...> (replace 0x... by your contract address)
- ⑤ Move coins around
- ⑥ In MetaMask, click on your token to check the tx on Etherscan



# Most tokens are created this way

- More than 50% of the top 100 coins by market cap (\*)
- In 2018, it was 94% according to ConsenSys

(\*) *estimated April 2019 by cross-referencing the list of top ERC20 tokens by market cap on [eidoo](#) and the list of all tokens by market cap on [CryptoList](#)*



# Thousands of tokens in circulation

CRYPTOLIST

Lists FAQ Blog Roadmap

## Explore 2,558 Cryptocurrencies

A customizable directory of cryptocurrencies with descriptions, properties, and metrics.

Save List

Search: Showing 2558 cryptocurrencies

Favorites: Show ★ only

Market Cap: \$0, \$1m, \$10m, \$10b, \$14b

24h Volume: \$0, \$10k, \$1m, \$10m, \$14b

Cryptocurrency Type: All +

Consensus Method: All +

Premine %: 0%, 25%, 50%, 75%, 100%

#	Name	Symbol	Price	Market Cap	24h Volume	1h %	24h %	7d %	Updated	Circulation	Total Supply	Max Supply
1	Bitcoin	BTC	\$5,323,06759547 <sup>00</sup>	\$94,004,442,199	\$13,942,335,721	-0.27%	0.68%	3.98%	5 minutes ago	17,659,825	17,659,825	21,000,000
2	Ethereum	ETH	\$169,947754110	\$17,974,810,067	\$5,820,222,406	-0.73%	0.70%	3.70%	5 minutes ago	105,766,669	105,766,669	∞
3	Ripple	XRP	\$0.3229086067	\$13,548,518,703	\$1,038,544,410	0.00%	0.71%	-0.28%	5 minutes ago	41,970,748,057	99,991,649,568	100,000,000,000
4	Bitcoin Cash	BCH	\$289,45193166 <sup>00</sup>	\$5,135,593,665	\$1,146,009,000	-0.66%	1.92%	-6.43%	5 minutes ago	17,742,475	17,742,475	21,000,000
5	EOS	EOS	\$5.2275246299	\$4,928,030,368	\$1,825,231,318	-0.41%	1.23%	-3.43%	5 minutes ago	942,708,207	1,042,708,210	1,000,000,000
6	Litecoin	LTC	\$76.4510996571	\$4,698,195,973	\$2,592,857,728	-0.25%	0.78%	-4.40%	5 minutes ago	61,453,609	61,453,609	84,000,000
7	Binance Coin	BNB	\$24.3056197789	\$3,431,357,788	\$235,270,959	-0.74%	1.31%	25.53%	6 minutes ago	141,175,490	189,175,490	200,000,000
8	Tether	USDT	\$1.0067113101	\$2,613,225,659	\$11,594,540,667	-0.12%	-0.06%	0.20%	6 minutes ago	2,595,804,411	2,750,057,493	∞
9	Stellar	XLM	\$0.1128233891	\$2,184,668,494	\$237,175,071	-0.30%	1.47%	-2.43%	5 minutes ago	19,363,613,444	104,902,369,331	∞
10	Cardano	ADA	\$0.0749182717	\$1,942,411,316	\$79,787,409	-0.77%	3.37%	-9.50%	5 minutes ago	25,927,070,538	31,112,483,745	45,000,000,000
11	Tron	TRX	\$0.0250677015	\$1,671,566,283	\$358,260,088	-0.20%	1.55%	-6.43%	5 minutes ago	66,682,072,191	99,281,283,754	100,000,000,000
12	Monero	XMR	\$68.2285580424	\$1,155,361,704	\$103,503,379	-0.09%	-0.09%	3.74%	6 minutes ago	16,933,697	16,933,697	∞
13	Dash	DASH	\$121.7512988280	\$1,067,050,684	\$263,470,233	-0.13%	1.24%	1.44%	5 minutes ago	8,764,183	8,764,183	18,900,000
14	Bitcoin SV	BSV	\$57.7436743878	\$1,024,396,511	\$108,511,954	0.49%	2.48%	-10.50%	5 minutes ago	17,740,411	17,740,411	21,000,000
15	Tezos (Pre-Launch)	XTZ	\$1.3303384190	\$879,526,698	\$4,402,469	0.19%	0.81%	21.21%	6 minutes ago	661,130,044	791,757,531	∞

Figure: Source : <https://cryptoli.st>

Tokens are cheap to make,  
so what?

# Large Fundraising

Biggest ICOs (by amount raised) –Join us next month to learn more!

Project	ICO Dates	Amount Raised	
EOS	6/26/17 – 6/18/18	\$4.1 billion	Smart Contracts
Telegram	01/18–02/18	\$1.7 billion	Encrypted Messaging & Blockchain Ecosystem
Dragon	02/15/18 – 03/15/2018	\$320 million	Decentralized Currency for Casinos
Huobi	01/24/18 – 02/28/18	\$300 million	Cryptocurrency Exchange
Hdac	11/27/17 – 12/22/17	\$258 million	IoT Contract & Payment Platform
Filecoin	08/10/17 – 09/10/17	\$257 million	Decentralized Cloud Storage
Tezos	07/01/17 – 07/14/17	\$232 million	Self-Amending Distributed Ledger
Sirin Labs	12/16/17 – 12/26/17	\$158 million	Open-Source Blockchain Smartphone
Bancor	December 6, 2017	\$153 million	Prediction Markets
The DAO	05/01/17 – 05/28/17	\$152 million	Decentralized VC

Figure: Source : Lielacher, 2018



# Native Currency



Figure: Source : give.zone (also sold on Amazon, PlayStation store, etc)

# A Token can represent anything



Figure: Credit : H. Michael Karshis

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# Case Study: Gold tokenization



Figure: Credit : [stevebidmead](#)

- JP Morgan tokenizes Gold (Fries, 2018)
- LAToken partners with MyGold (LATOKEN, 2017)
- ...

# Case Studies: fractional real estate and track & trace (Tuna)

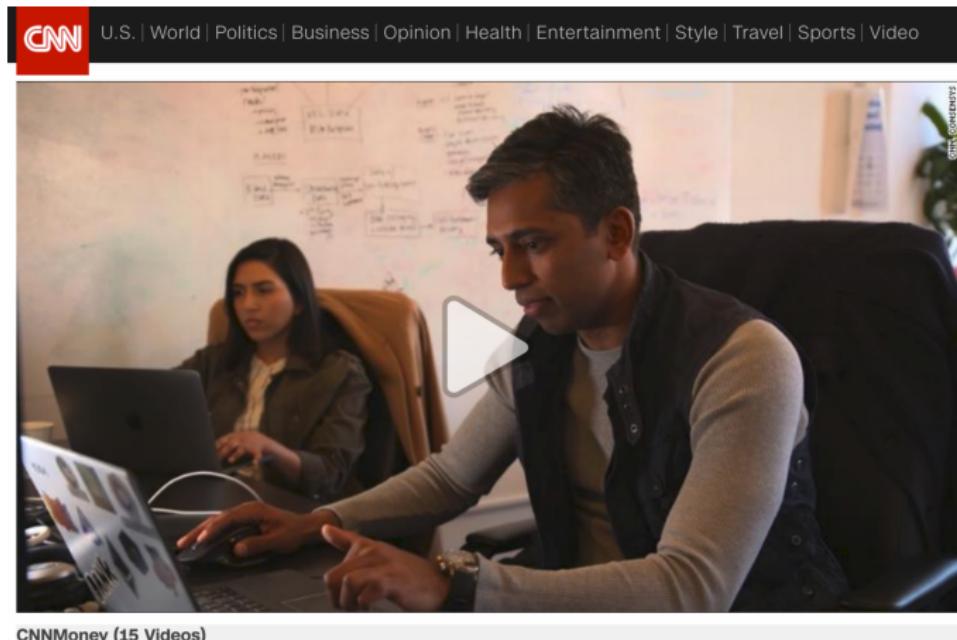


Figure: Source : CNN, 2018

# Case Study: Ontario farmers sell corn on Blockchain rails

<https://farmtario.com/crops/ontario-farmers-make-first-blockchain-system-corn-sale/>

## Ontario farmers make first blockchain system corn sale

An Ontario startup company facilitated the trade of high-DON corn



By John Greig

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Editor

Published: January 18, 2019

Crops, Markets

0 comments



11



Larry Reynolds, left, and Lloyd Crowe were the first users to make a sale of corn using Grain Discovery's system. Photo: Courtesy Grain Discovery



# Case Study: Walmart, Nestle, Unilever and others track the food supply chain

<https://cointelegraph.com/news/walmart-ibm-blockchain-initiative-aims-to-track-global-food-supply-chain>

## Walmart, IBM Blockchain Initiative Aims to Track Global Food Supply Chain



Walmart and nine other companies have partnered with IBM in order to release a blockchain for tracking food globally through its supply chain, The Wall Street Journal (WSJ) reports June 25.



# Case Study: Trade Finance



ConsenSys partnered with a consortium of 15 key industry leaders and leading bank institutions to create a network-based commodities trading platform.



# Tokenization scenarios

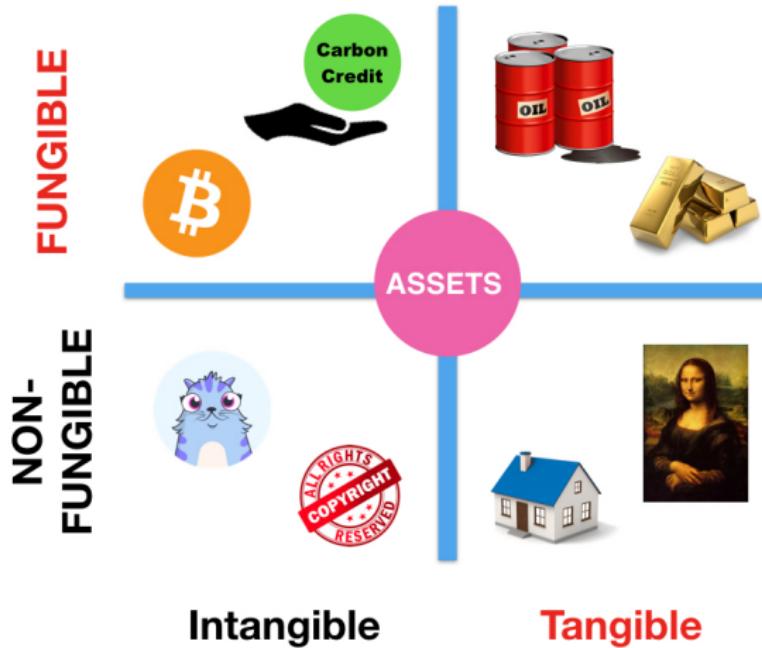


Figure: Source : Coindoo



## What did we learn?

Tokenization is a mechanism to manage and trade anything *digitally* with the same trust and benefits (or more) as with Bitcoin.



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# What's an Economy?

An **economy** (from Greek οἶκος – "household" and νέμομαι – "manage") is an area of the production, distribution, or trade, and consumption of goods and services by different agents.

[Economy - Wikipedia](#)

<https://en.wikipedia.org/wiki/Economy>

Economic Systems		
	Ownership of Means of Production	
	Social Ownership	Private Ownership
Allocation Mechanism	Planning	Socialist Planned Economy
	Markets	Dirigisme / "Command Capitalism"
	Market Socialism	Market Capitalism

en.wikipedia.org

# Economics 101



Alice is good at harvesting coconuts



Bob is better at fishing

Alice (you): 1 hour to catch a fish, 30 minutes to get a coconut

Bob (Friday): 20 minutes to catch a fish, 30 minutes to get a coconut

- Before you meet, 7 fish and 6 coconuts.
- After you meet, 10 fish and 10 coconuts.

Friday:

- Before you meet, 12 fish and 12 coconuts
- After you meet, 14 fish and 14 coconuts.

<https://www.e-education.psu.edu/ebf200/node/191>

Figure: Source : Posner, 2018

# Contribution of Blockchain

- Internet of value
- trust
- tamper-resistant
- auditable
- programmable!
- ...



# Automated peer-to-peer compensation

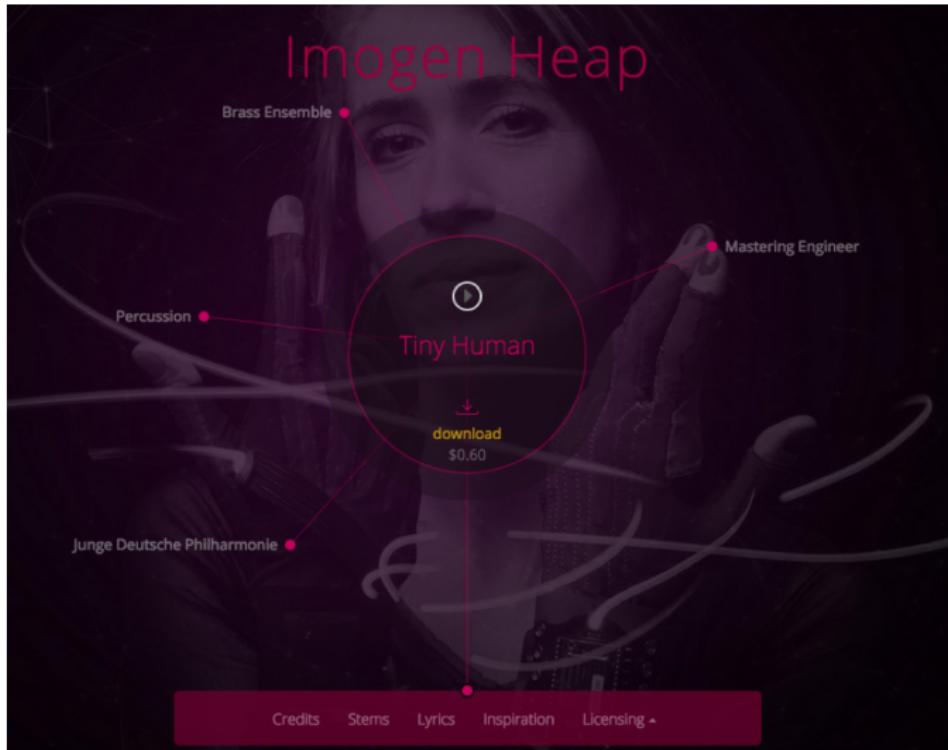


Figure: Source : Ujo Music



# In Toronto: Prescient is developing an Attribution Ledger for Work of Arts

## PROJECT INFORMATION

### Attribution Ledger.

Thanks to the Internet and modern production tools, content is created and consumed at unprecedented rates. While digital service providers profit, creators have difficulty sharing and monetizing the content they produce. Unfortunately, attribution can be removed from their work and distributed online without their knowledge or rightful compensation.

At Prescient, we're solving the problem by developing an **Attribution Ledger** using Blockchain and Machine Learning. It will reliably and accurately connect a creative work with its lawful creator and rights owner. Moreover, it has the potential to include audiences in the compensation through microlicensing and peer to peer sales.



Figure: Source : <https://prescientinnovations.com/attribution-ledger>

# The "free" economy

## The Six Kinds of Free!

The slide illustrates six models of the "free" economy:

- Freemium:** A screenshot of a Rocker website offering a free trial period.
- Advertising:** A screenshot of a Google search results page.
- Cross subsidies:** A photograph of a razor being used to shave a face.
- Zero marginal cost:** An icon of a person inside a circular signal pattern.
- Labor exchange:** A screenshot of a Freelancer.com website.
- Gift economy:** A photograph of a wrapped gift box.

Slide created by: Cerado, Inc. <http://www.cerado.com>  
Data credit: Wired Magazine, [http://www.wired.com/techbiz/life/magazine/16-03/f\\_free](http://www.wired.com/techbiz/life/magazine/16-03/f_free)  
Razor: <http://www.flickr.com/photos/derek72/2479623736/>  
Gift: <http://www.flickr.com/photos/grobleto/2049575110/>

Figure: Credit : Christopher Carfi



In Toronto: Midata is developing a platform to get paid for usage data while maintaining privacy



Figure: Source : <https://midata.io>

# The "sharing" economy



Figure: Credit : Tira94



# Token-Curated Registries (TCRs)

Logo by John Lindmark

**Creating a Humanist Blockchain Future**

[patreon.com/RhysLindmark](https://patreon.com/RhysLindmark)

@RhysLindmark

**Sponsored By:**

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**Mike Goldin, AdChain**  
Token-Curated Registries  
EP 18

Season 1, Episode 4  
Series C: Software Systems

Figure: Source : Lindmark, 2017



# Token Economy approach from Outlier Ventures

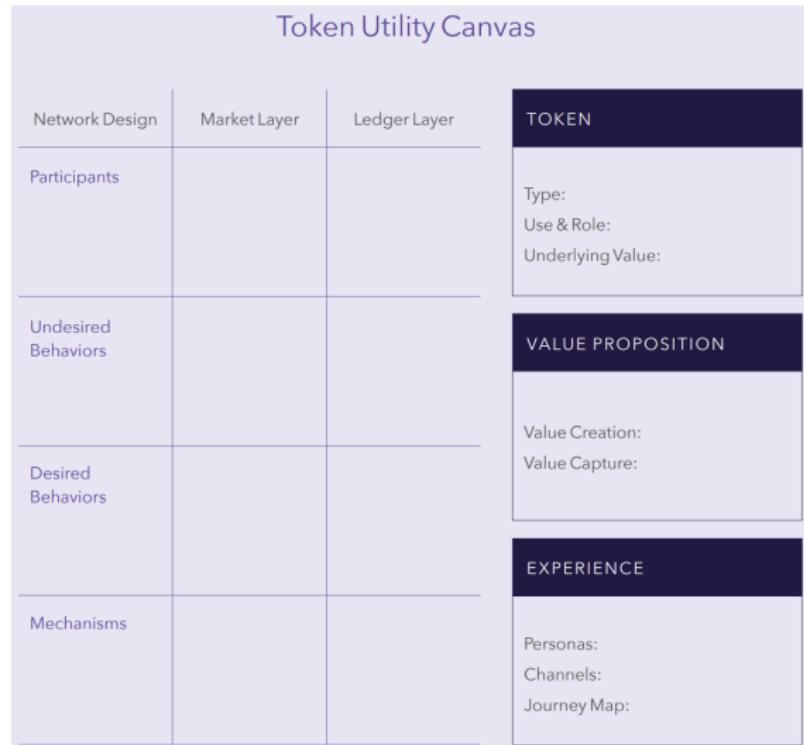


Figure: Source : Outlier Ventures, 2018



# Thank you!

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[www.metameshgroup.com](http://www.metameshgroup.com)



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