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Oct 12, 2017 · 10 min read

Blockchain Powered Platforms: Tokens

How Can the Token Economy be Integrated with Platform Strategies?

In the last few months I've been looking deeply into the so called *Token Economy,* the most thrilling development in Blockchain technology, one that is lately making sensational headlines, and attracting regulators attention across the globe.

Despite all the criticism that have been raised (volatility, security, unclear governance and monetary incentives, just to mention a few), I do believe that crypto-token economics is an excellent complement to platform strategies and that there's a huge potential in **Blockchain Powered Platforms** and I'll briefly explain why in this post.

Though the topic is hot, and you may be familiar with the idea of the Blockchain—and related major ecosystems like Bitcoin and Ethereum—you may not be as informed about the concept of ICO (Initial Coin Offering) and crypto-tokens so better to just recap a bit.

In (**very**) few words, ICOs refer to the the possibility for entrepreneurs to:

- design and deploy a **distributed application** (DApp), on top of existing blockchain based protocol stacks (many of them are currently based on the existing Ethereum, see ERC20*),* or on a brand new one;
- design **crypto tokens** to be used in participating (in various ways) in the value creation system powered by the distributed application, for example as users (so called *usage tokens*) or as providers (*work tokens*).
- **issue** (techie read *pre-mine*) and sell these tokens (or part of them) on the market in an initial launch event (normally called ***token sale***) to which the issuing organization can arrive with a well formed preliminary working version of the Dapp, a prototype, or just a white paper describing the application idea and ecosystem. These tokens can be allocated or sold using various schemes ranging from *airdropping* them (for example as a gift to the users of an existing app), to complex allocations schemes optimized for certain distribution policies, price, accessibility. The issuing organization can also put a cap on the money that can be raised.

The whole design of the monetary policy controlling initial release and evolution (e.g.: inflation mechanisms) of a token, provide clear incentives to investors about how such token would, not only, conserve monetary value and liquidity, but also how its appreciation is foreseen over time.

Some of the most successful ICO cases include: identity management, distributed storage, governance, advertising, and more.

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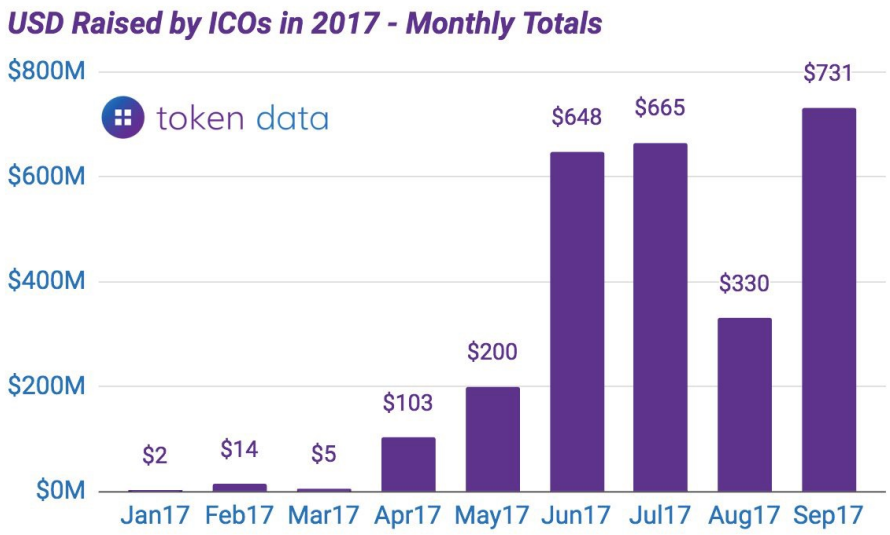
The type of applications disclosed in the last few months has been varied and the space is going through an exciting (bubbling) phase—with overall ICO investments amounting to an incredible 2.7 B$ to date (Tokendata.io).



Before we move on, I highly recommend you to take a look at few reads that can help you navigate a bit more the topic. All of these are strongly suggested:

- "Cryptoeconomics 101" and especially the excellent "On Token Value" by Nick Tomaino
- "Thoughts on Tokens" by Balaji S. Srinivasan
- "Crypto Tokens: A Breakthrough in Open Network Design" by Chris Dixon

These are just few reads—among hundreds—so feel free to follow me on twitter for more curation on this topic or just register to Token Economy newsletter (in my opinion, the most excellent resource on the topic so far), by Stefano Bernardi and Yannick Roux: it's going to be your weekly dose of crypto-wisdom.

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How do Tokens extend Platform Thinking?

What is a Platform Strategy? In the latest post on this blog (see above) we explored a way to look at platform strategies as **ways to mobilize ecosystems** and attract them into **expressing their potential** to **achieve their objectives** and respond to **mounting pressure**.

So how do token economies come as an additional design tool and technology for platform strategists?

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The first thing to acknowledge when we speak about what we're calling *Blockchain Powered Platforms* is that adopting such a choice for a a platform designer and owner doesn't come without challenges. In particular, the technological stack composing the core of the platform's tech layer would have to based on a *decentralized architecture*—representing quite a Copernican revolution in how we have conceived digital tech in the last decade (largely characterized by centralization and *walled gardens*).

Although it introduces a series of non-negligible challenges in system architecture and design, decentralization is of foremost importance, not only as a way to make more trustworthy and unbiased platforms that

protect **freedom of speech**, but also because, as Dave Snowden recently put it:

> *you don't scale a complex system by aggregation or imitation but by decomposition to an optimal level of granularity followed by recombination in context.*

My bet is that—as our society dives into complexity and unpredictability at increasing rates—we'll need systems (and platforms) that leave more freedom of expression and recombination *at the edge,* moving away from one size fits all experiences and services, encouraging ***exaptation*** (essentially the possibility that features help systems evolve by means of unexpected and unplanned cases of application).

Exaptation always comes from the periphery of systems.

But practically speaking, how does the token economy, as it promises to mix economics, monetary policy design and design thinking, bring new potential to platform designers to activate ecosystems?

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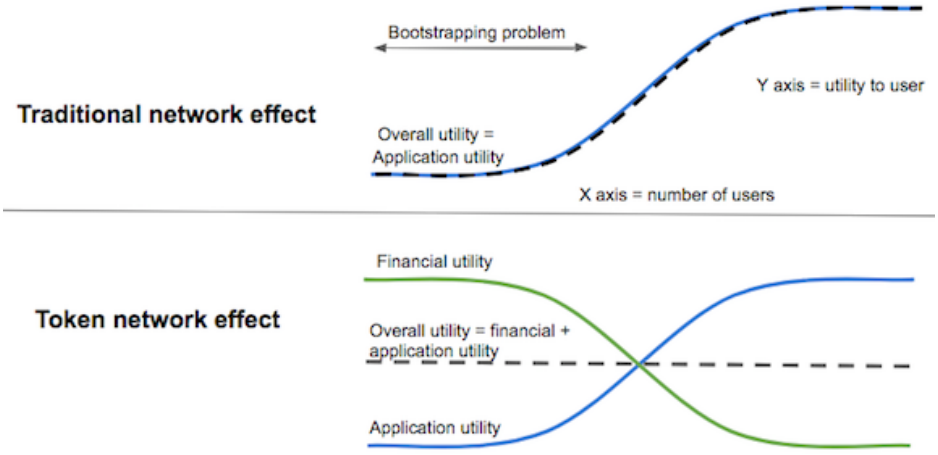
Adding Financial Incentives while Bootstrapping Network Effects

The first and probably most intuitive use of tokens as complements in platform strategy design and execution is their potential to solve the eternal chicken-egg problem. As conveniently explained by Chris Dixon, by introducing a token sale—usually during a launch phase—one can effectively "bootstrap" the ecosystem by essentially complementing two aspects: use value and financial value, the former being usually low before achieving network effects. By getting tokens, early users can bet on—and actively participate into—the growth of the network: after bootstrap the financial attractiveness of tokens will leave room to

application utility (use value) and users will be attracted by the latter. In few words, those that will be happy to take some risk in the bootstrap phase will be rewarded lately.



From "Crypto Tokens: A Breakthrough in Open Network Design."

But how does the financial utility come about? This helps me connect with the second interesting aspect of tokens.

Normally, crypto tokens related to an existing project quickly become tradable with other cryptocurrencies and tokens and—therefore—with fiat currencies. If an application works and it's well designed, the experience, feature base, and network attractiveness will grow in the months following the ICO: early token holders (some of them also users) will then exploit a financial gain due to the token appreciation.

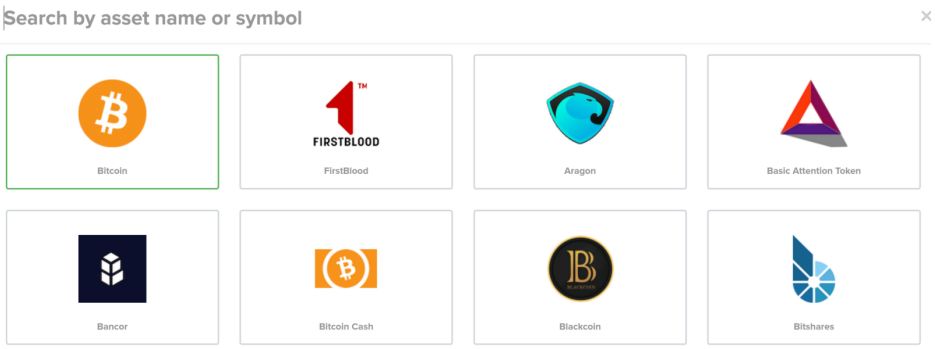
One clear example is that of **Steemit:** early writers and curators took the risk to write and invest in a new platform (with smaller reach respect to, say, **Medium**) but, if the system will eventually succeed, the tokens they've got will have greater value in the long term.

Of course one needs to **bet on the right project**: that's why for example people like Stefano Bernardi are advocating to better and more open due diligence processes for ICOs; when a early adopter can become an *early investor* with a few—informed—clicks, a more clear and public assessment of the idea, code and a whitepaper related to an ICO event

should be available for you to figure out how risky is to bet on it for the long or short term.

Trading as Inter (Eco)System Communication

Once a token is featured on token exchanges a bit of magic happens: you can trade it for other tokens. Places such has **shapeshift.io** let users trade and transform alt-coins (tokens) into each other and—eventually—into Bitcoins or Ethers.



shapeshift.io helps you buy and trade alt tokens easy

In this way tokens make the **value created inside an ecosystem instantly *tradable***: token *exchange-ability* enables inter-network/inter-platform communication, possibly enabling the first steps going from *single ecosystem thinking* towards a more global *systems thinking*. What happens when several different networks, that are achieving value creation in a specific context, start to communicate, and interact by signals of price formation and currency exchange? We're going to see what the future holds, but there's a bold vision of a free and value driven economy that may unfold, despite some will say that it looks a bit like the old one. With a difference: you are now free to design economic spaces, and issue currencies to enable them.

Refreshing our Platform Design Toolkit conceptual model of available ecosystem roles.

A great (and simple) explanation of how an economic space might work, comes clear from Tomaino's "On Token Value" with his taxonomy of tokens featuring four types:

- **Traditional Asset Tokens**: essentially tokens representing ownership of an asset, imagine them in the hands of what we normally call **Platform Owners**.
- **Usage Tokens**: tokens that are needed to consume the value produced in the network, imagine a platform where **Peer Consumers** need to use these tokens to pay to consume the services coming from other peers.
- **Work Tokens**: tokens that are needed to provide work on the network; essentially tokens that any P**eer Producer** or **Partner** should use to prove she's the right to contribute
- **Hybrid Tokens** (a mix of the above)

As you can see there's almost a perfect overlap between token types and the roles that normally you've in a platform strategy: owners, providers and consumers.

Token type	Function	Examples
Traditional asset token	To represent a traditional asset cryptographically	USDT, DGD
Usage token	To provide access to a digital service	BTC, ETH, BAT
Work token	To provide the right to contribute work to a decentralized organization	REP, MKR
Hybrid (usage + work)	To provide access to a digital service and the right to contribute work	FIL, ETH (with Casper)

From Tomaino's "On Token Value"

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Permission-less means Boundary-less

Another key aspect that thrills me a lot regarding the *permission-less* economies enabled by **Blockchain Powered Platforms** is that permission-less means open and accessible.

We've been praising the idea that platform strategy need to be based on a *boundary-less* approach to design: whatever design boundary you chose to consider when designing a platform strategy (e.g. providing access on the basis of status, geography, belonging…) are all **self-imposed design limitations** that may hinder your growth potential in the long term.

> *There's no more an "inside" or "outside" to an organization: strategy must be boundary-less and participation must be permission-less.*

A New Set of Incentives: Ownership & Governance

Token economies open fascinating new perspectives in this context and not only in the use cases one might more easily see, the creation of a new business application. Think for example of an organization that wants to transform itself towards more sustainable innovation. To do this this, the organization creates a *marketplace platform* for trading good practices,

artifacts, knowledge and more. This innovation strategy would connect internal and external entities (from business units to startups, other companies, experts). Now think of creating a specific crypto-token, essential to trade on this platform, that, on the other end, could be used to buy services from this company, and later then reinvested in sustainable innovation.

Now imagine now this token being tradable on public exchanges: all stakeholders interested in supporting sustainable innovation in such an organization (let's say for example shareholders that would be interested in long term resilience, but also loyal customers interesting in helping the company evolve for more sustainable products in the future) might be interested in the appreciation of this token and therefore aim at buying it with fiat currencies and using it to consume the company services.

This is of course just a crazy example, but you've got the point:

> *Crypto-tokens can help design far reaching incentive schemes capable of generating outcomes into systems, on the steroids of network effects and financial utility.*

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The last—but not least—exciting aspect in crypto-tokens and platforms is the huge leap that tokens might bring in designing **governance strategies for platforms**. A governance that is really based on what we call *operational reputation:* by making value trades inherently more granular and measurable—and transparent—tokens make reputation more easy to be leveraged in all kind of governance processes and activities, from *live* decision making to outcomes distribution.

As most of you may know, **reputation** is essential on platforms and networks: is the only way to **make the best emerge**, recognize the value provided historically to the network by single entity.

By connecting governance rights with any of the tokens described above (ownership, usage, work, …), platform designers might use **governance rights as a further set of incentives**, motivating participants from the ecosystem to join: the more you contribute—or, perhaps, consume—the value produced in the ecosystem, the more your voice could be heard in the decision making processes every network (platform) has to deal with, during its evolution.

All this sounds—at least to me—as an exciting perspective: crypto-tokens could bring the nascent practice of *Design for Ecosystems* to a whole new level of impact.

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We're actively looking into this space—the convergence between Platforms, Token Economies, Monetary Policies and Business Design—and we're excited to join efforts with partners. Reach out if you want to explore ways to support this research and exploration as a funder or partner.

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