BLOCKOCRACIES AND TOKEN ECONOMIES: THE ETHEREUM IMAGINARY

Paul J. Ennis
University College Dublin, paul.ennis@ucd.ie

Donncha Kavanagh
University College Dublin, donncha.kavanagh@ucd.ie

Luis Araujo
University of Manchester, luis.araujo@manchester.ac.uk

Follow this and additional works at: https://aisel.aisnet.org/ecis2021_rip

Recommended Citation
https://aisel.aisnet.org/ecis2021_rip/48

This material is brought to you by the ECIS 2021 Proceedings at AIS Electronic Library (AISeL). It has been accepted for inclusion in ECIS 2021 Research-in-Progress Papers by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
Abstract

This paper inquires into how token economies come to be, or how they are constituted. In examining this question, we draw on the market-making literature in economic sociology and the literature on social imaginaries. Our point of departure is that instead of a market emerging from a bureaucracy, we investigate a market emerging from a blockocracy, which is a form of organising based on public, permissionless, decentralised, coin-based blockchains. We argue that Ethereum is a blockocracy out of which a token economy comes to be and that the particular form of that token economy is best understood through the notion of an imaginary. We describe the Ethereum imaginary on six dimensions with an associated image for each: technical (the world computer), financial (functional money), political (cypherpunk mutualists), ethical (public goods commonists), organisational (decentralist engineers) and aesthetic (playful creators).

Keywords: Token economy, Ethereum, blockchain, blockocracy, marketization, imaginaries

1 Research Question

How do token economies come to be, or, put differently, how are they made (or made up)? This is our overall research question and one that immediately calls to mind the literature on how markets are made, as a token economy is a particular form of market (with money taking the form of tokens rather than fiat currency). Thus we see our research as contributing to the ‘market-making’ literature while also saying something interesting about the construction and maintenance of token economies.

2 Literatures

2.1 Making markets

The market-making literature has developed significantly over the last two decades, building on Michel Callon’s (1998b) edited collection of papers that inquired into the ‘laws’ of the market. As Callon observed in his introductory essay, the volume was an attempt to address North’s observation that ‘It is a peculiar fact that the literature on economics ... contains so little discussion of the central institution that underlies neoclassical economics – the market’ (North, 1977, p. 710). One of Callon’s key insights was that ‘economics, in the broad sense of the term, performs, shapes and formats the economy, rather
than observing how it functions’ (Callon, 1998a, p. 2). Drawing on this idea, Donald MacKenzie (2006) argued that modern economic theories of finance, based on elegant mathematical models of markets, were ‘engines’ that worked to alter and constitute markets in fundamental ways, rather than a ‘camera’ that merely reproduced empirical facts. Theories of the market were, in this sense, performative, drawing on Austin’s (1962) distinction between constative and performative statements, which hinges on whether one can independently assess a statement’s truth or falsity. One can check the veracity of a constative statement, such as ‘the dog is on the table’, while with a performative statement, such as ‘I name this ship Queen Elizabeth’, the very act of making the statement creates the statement’s truth. Theories, in this sense, are performative in that they can work to ‘induce changes within a practical domain so that the world envisaged by the theory or model becomes progressively actualized’ (Mason & Araujo, 2020, p. 2). These ideas have spawned a flood of publications on performativity in general and the role of economic theories in the construction of markets in particular. In addition, the ideas brought a new focus on ‘marketization’, which Çalışkan and Callon (2010, p. 3) define as the ‘entirety of efforts aimed at describing, analysing and making intelligible the shape, constitution and dynamics of a market socio-technical arrangement’.

A significant portion of the marketization or market-making literature has investigated instances where goods and services, previously delivered by the state (through one of its bureaucratic arms), are now supplied through a market-based arrangement. For instance, studies have been conducted on the marketization of education (Molesworth et al., 2011), development (Berndt, 2015), and healthcare (Mason & Araujo, 2020), all of which might be considered instances of a bureaucracy ‘spawning’ a market. While we build and draw on this literature, we also depart from it as we focus on the making of a token economy that has not emerged out of a (state) bureaucracy. Instead of a bureaucracy, token economies emerge out of a blockocracy (Kavanagh & Ennis, 2020)

Kavanagh and Ennis define a blockocracy as a ‘signifier for a set of variable procedures, socio-material practices, movements and contestations, designed to achieve particular ends through using public, permissionless, decentralized, coin-based blockchains’ (p. 293). In their paper, they compare and contrast blockocracies with Weber’s (1921/1978) enduring description and analysis of bureaucracies. While bureaucracies and blockocracies are very different, they share a number of features. Both are: organisational manifestations of rational-legal authority; rule-based systems that privilege written rules; coherent systems designed to continuously create order; dependent on a system that creates and manages money. With respect to the latter, which is especially relevant to our study of token economies, Weber argues that money economies and bureaucracies have co-evolved and one would not survive without the other (Weber, 1921/1978: 86, 963, 964). Since a blockocracy must have an endogenous blockchain-based cryptocurrency, the concept does not extend to private or permissioned blockchains.

A blockocracy differs from a bureaucracy in significant ways. A blockocracy’s rules are predominantly protocols that operate at different levels – Internet, blockchain, DApp and Meta DApp – with each level having its own regulatory framework. Unlike bureaucracies, blockocracies do not have a stable hierarchical division of labour, monocratic supervision, nor a formal appeal system. Authority to give commands is not distributed in a stable way nor are activities assigned as official duties. Weber’s classic depiction of the bureaucrat – someone who does not own the resources to undertake their work but instead holds an ‘office’, someone who has a sense of vocation, career path and a future pension – is also largely absent from a blockocracy. At the same time, a blockocracy is not a market, populated by independent actors; rather it is a coherent system bound by a shared blockchain and common currency. Both the Bitcoin blockchain and Ethereum ecosystem are good examples of a blockocracy.

We have found the concept of ‘imaginary’ useful in analysing blockocracies and hence the next section briefly reviews this concept.

2.2 Imaginaries

The concept of the imaginary has a long history. McNeil et al (2017) provide a useful map of the genealogy of imaginaries highlighting the contributions of Kant, Sartre, Le Doeuff, Lacan, Anderson, Castoriadis, Appadurai, and Taylor. From this broad review, we can identify a variety of understandings
and uses of the concept. First, there is Charles Taylor’s (2002, p. 106) view that the imaginary ‘incorporates a sense of the normal expectations that we have of one another’ which is both factual and normative. He uses the term ‘social imaginary’ to emphasise that an imaginary is simultaneously a foundation of social life (‘common understanding that makes possible common practices and a widely shared sense of legitimacy’) as well as being reflexive about the social (‘the way we are able think or imagine the whole of society’) (Taylor, 2004, pp. 23, 63). If Taylor is interested in the ‘forms of social imaginary that have underpinned the rise of Western modernity’ (2002, p. 92), others invoke a narrower and prospective lens. One example is Jasanoff and Kim’s (2009, p. 120) concept of national sociotechnical imaginaries, which they define as ‘collectively imagined forms of social life and social order reflected in the design and fulfillment of nation-specific scientific and/or technological projects.’ Harvard’s Sociotechnical Imaginaries Project provides a rich resource on sociotechnical imaginaries, and it usefully distinguishes the concept from problem frames, policy agendas, master narratives, and media packages (Harvard University, 2021). Imaginaries, in this narrower sense, at once describe desirable futures and prescribe futures that states believe ought to be attained. In contrast to Taylor, who linked the imaginary to Heidegger’s notion of the ‘background’ – the ‘largely unstructured and inarticulate understanding of our whole situation, within which particular features of our world become evident’ (Taylor, 2002, p. 107) – Jasanoff and Kim see the imaginary as much more explicit and teleological. The imaginary, for them, is a vision of the future and a basis for action to realise that future. Later, Jasanoff (2015, p. 4) redefined imaginaries as “…collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology’. This definition leaves little room for emergent or subversive imaginaries that challenge existing orders, although Jasanoff acknowledges that multiple socio-technical imaginaries can coexist in a society in a symbiotic or antagonistic relationship to each other.

As Andersson (2017) notes, this literature feeds on a vision of contemporary societies as increasingly involved in generating and managing expectations about the future. Policy instruments and management devices such as foresight reports, horizon scanning and scenario planning are deployed to articulate visions of a future that can be shaped through a variety of anticipatory interventions. Beckert (2013, p. 220) coined the term ‘fictional expectations’ to denote how expectations about the future provide a frame for decisions in the present, despite the incalculability of outcomes: ‘Fictional expectations in the economy take narrative form as stories, theories, and discourses’. Whereas Beckert privileges literary fiction as a source metaphor, the sociology of expectations literature asks broader questions regarding to what extent “…are expectations the enunciated views and ideas of people (utterances)’, and ‘in what way do they become “inscribed” in texts, actions, bodies, materials, objects and machines (embedded)?’ (Borup et al., 2006, p. 292).

Our own understanding of imaginaries adopts a pragmatic and agnostic attitude to their origins and how they combine technological, economic, social and political elements. From Taylor, we draw on the importance of conceiving imaginaries as infrastructural to and reflexive of social practices. From the broader imaginaries’ literature, we take the notion that imaginaries are prospective and performative, articulating as well as helping to bring about the futures they envision.

Our broad research question is thus how the notion of imaginaries helps us map the constitution and evolution of cryptocurrency projects and initiatives, how those imaginaries are materialised and carried forward, and how they evolve. We do not assume that these imaginaries are clearly articulated a priori or do not face struggles or undergo changes as projects evolve. But we suggest the performativity of imaginaries, their ability to bring about the futures they articulate, is dependent on how successful they are to be inscribed in texts, devices and processes that condition the actions and behaviours that can be carried out under their umbrella.
Methodology

Our inquiry is centred on how token economies come to be, which suggests that the most appropriate approach should be empirical, processual and longitudinal. Our methodology is in the ethnomethodological tradition in that it seeks to understand how a social order, in this case a token economy, comes to be.

Actor-network theory is also part of that ethnomethodological tradition and indeed Michel Callon is an important link between actor-network theory and the more recent literature on market-making. Within actor-network theory, one of the seminal contributions was Latour and Woolgar’s (1979) *Laboratory Life*, which described the practices and debates through which a scientific community gradually accepted one statement as a scientific fact. We take a similar approach in our study, which analyses the imaginary animating one particular blockocracy, Ethereum. The method is described in more detail in previous publications (Kavanagh et al., 2019).

The Ethereum Imaginary

Ethereum was conceived in 2013 by the Russian-Canadian programmer Vitalik Buterin. In his whitepaper, Buterin (2013a) highlighted that the blockchain technology that underpinned Bitcoin had untapped capacity: ‘the blockchain concept can be used for more than just money’ (p. 1). As Chen (2018) puts it:

> Bitcoin by design was mostly an application—or a platform with very limited capabilities. They wanted Ethereum to become a general-purpose development platform that could be relied upon to create decentralized applications and digital tokens. (p. 567)

In the remainder of this section, we outline the key features of the Ethereum imaginary across six dimensions: technical, financial, political, ethical, organisational, and aesthetic.

4.1 Technical: The World Computer

Bitcoin’s blockchain is essentially a shared ledger of all bitcoin transactions. The ledger is also immutable – the blockchain’s major innovation – which precludes ‘double spending’ and so makes digital money possible without requiring a trusted third party. Bitcoin does one thing and one thing well: it tracks a unit of account called bitcoin and never deviates from this function. There is only one endgame: the accumulation of more bitcoins. To use a Marxist phrase, it is an ‘accumulation regime’. Bitcoin’s limited design is what originally drove Buterin to create Ethereum (Russo, 2020). Instead of ledger-thinking, Ethereum encourages computer-thinking, which is the first element in the Ethereum imaginary. Ethereum is a shared world computer rather than a ledger of transactions and this distinction is crucial to understanding Ethereum’s imaginary and how it differs from Bitcoin. The difference is reflected in a common refrain found in each community (the misspellings are intentional): Bitcoiners “hodl” or hoard bitcoins and Ethereans “buidl” or create (Russo, 2020).

The idea of a world computer is operationalised in Ethereum through ‘smart contracts’ which are computer programmes that run on the Ethereum world computer and encode simple business, social, or organizational logics (Shermin, 2017). The exact nature of what the smart contract does is up to the developer, as the Ethereum blockchain is neutral in terms of what is built on it. Anyone can leverage the world computer to build their own project. The emphasis is always on constructing, on computer-thinking rather than ledger-thinking.

4.2 Financial: Functional Money

The shift away from ledger-thinking also comes through in how money is imagined in the Ethereum ecosystem, which is very different from Bitcoin. The standard narrative is that Bitcoin originally combined two cultural imaginaries, cypherpunk and crypto-anarchy, with the former concerned with open source technologies and the latter with libertarian economics (Swartz, 2018). Over time, however, the crypto-anarchist imaginary won out and so today money in Bitcoin is conceptualised as digital gold,
based on its scarcity (Maurer et al., 2013). Consequently, most economic activity in Bitcoin revolves around speculation on and accumulation of this scarce resource (Baur & Dimpfl, 2021).

Money is imagined differently in Ethereum. In Ethereum, the unit of account (or currency) is known as Ether, and users pay a small Ether fee called gas to deploy/engage smart contracts (de Graaf, 2019, p. 5). Ether is similar to Bitcoin in some ways but also different in significant respects. It is issued in the same way as fresh bitcoins are – as reward for maintaining the ledger and transaction/gas fees – and Ether can also be bought and sold on cryptocurrency exchanges. Crucially, however, Ether is not imagined as digital gold. The maximum supply of Ether is not capped and so it is not scarce (EthHub, 2021). At heart, Ether is designed to be used, not held, and the overriding logic is toward Ether/gas as a usable asset that powers the various smart contracts that run on the world computer. This functional conceptualization of Ether/gas is the breakthrough moment in the creation of Ethereum:

He [Buterin] called it “gas.” He had no better name for it then – the name Ethereum hadn’t yet occurred to him – but what he did know is that any computation running on this new system would have to require a very small amount of cryptocurrency. That’s because whoever wanted to harness the power of this global set of linked computers would have to pay for it. (Leising, 2020, p. 110)

### 4.3 Political: Cypherpunk Mutualists

Buterin is clear in his whitepaper that Ethereum can offer more than just financial applications. In the section on Applications, he mentions finance as a clear use case (e.g. derivatives), but also ‘semi-financial applications, where money is involved but there is also a heavy non-monetary side to what is being done’ (e.g. bug bounties) and then ‘...there are applications such as online voting and decentralized governance that are not financial at all’ (Buterin, 2013, p. 19, our emphasis). Examples of semi-financial applications include the robust decentralized application (dApp) economy featuring games, entertainment, and blockchain art. Examples of non-financial services include domain-name hosting, file-sharing, social media and decentralized autonomous organizations (DAOs; see below).

In many ways, Ethereum can be seen as a political project, building, in particular, on the cypherpunk tradition that was central to Bitcoin’s early development, but which was ultimately displaced by the crypto-anarchist ideology. The political imaginary that now dominates in Bitcoin is a form of right-wing, individualistic libertarianism, that is very hostile to the state, government interference, and international organizations (such as the IMF, World Bank, UN, etc.). It opposes centralisation, though accepts that mining has become centralised in Bitcoin. It believes in meritocracy and is unfazed by any consequential inequalities or externalities.

The difference between the Bitcoin and Ethereum imaginaries are brought into focus through the lens of France’s national motto of ‘liberty, equality and fraternity’. If the Bitcoin imaginary strongly advocates liberty but largely dismisses the concepts of equality and fraternity, the Ethereum imaginary strives to promote all three ideas. It can be seen as a form of left-wing libertarianism, and while there is a very strong commitment to decentralisation – stronger indeed than in the Bitcoin imaginary – there is an equally strong commitment to collective action, community, and cooperation. While there is little direct reference to the term ‘mutualism’ within the Ethereum community, their practices can very much be seen as putting mutualist ideas to work. We also see in blogposts that Buterin (2018) has wider ambitions than those expressed in the individualist libertarian strain of Bitcoin culture:

…although I spend most of my time in the blockchain/crypto space heading up the Ethereum project and in some cases providing various kinds of support to projects in the space, I do also have broader interests, of which the use of economics and mechanism design to make more open, free, egalitarian and efficient systems for human cooperation, including improving or replacing present-day corporations and governments, is a major one.

### 4.4 Ethical: Public Goods Commonists

The ethical dimension of Ethereum’s imaginary emphasises this sense of community and the common good rather than the accumulation of individual wealth (which is not to say that individuals cannot
become wealthy through using the Ethereum ecosystem). Two issues illustrate why we use the term ‘public good commonists’ to describe this dimension of the imaginary.

The first issue relates to the vast quantities of energy that the ‘proof-of-work’ protocol – which underpins the original Bitcoin blockchain and almost all other blockchains, including the Ethereum blockchain – consumes. Stoll et al (2019) estimate that running the Bitcoin blockchain consumes as much energy per annum as Sri Lanka or Jordan. While the Bitcoin community is largely unconcerned by this, even in a time of climate change (e.g. Carter, 2020), the Ethereum community has engaged with the problem and invested huge effort in ensuring their coming upgrade, known as Ethereum 2.0, includes a less energy-hungry consensus mechanism known as Proof-of-Stake (PoS). This open-source development project, which is currently underway, is a major undertaking given that the original blockchain technology was the product of decades of work and is probably of historical significance. While energy-reduction is just one motivation for the upgrade – reducing transactions fees and allowing higher throughput are others – the very interest in solving the energy problem differentiates Ethereum.

The second issue relates to how to fund the development of a shared public infrastructure – especially apparent in times of major change such as an upgrade. Can the system simply depend on the generosity of wealthy benefactors and if so, is this not a form of centralized influence? Buterin’s attention has turned directly to the question of funding in recent years. In Buterin et al. (2019) Ethereum is explicitly conceptualized as a public good ‘…in which individuals can or do receive benefits from shared resources and investments…’ (p. 4). But funding public goods is difficult:

a simple private contributory system famously leads to the underprovision of public goods that benefit many people because of the free-rider problem…[while] a system based purely on membership or on some other one-person, one-vote (1p1v) system cannot reflect how important various goods are to individuals and will tend to suppress smaller organizations of great value (p. 1).

Drawing on Posner and Weyl’s (2018) work on radical markets, Buterin et al. (2019) propose a ‘Quadratic Funding (QF)’ mechanism that works, through a mathematical algorithm, to heavily subsidise small contributions while ‘large ones are least subsidized as these are more like private goods’ (p. 2)

The Ethereum community is not shy about implementing novel ideas and Quadratic Funding was soon put to work in the form of the Gitcoin project. Gitcoin started as an incentivization layer built on the open-source development platform GitHub. Originally, Gitcoin contributors were rewarded by users and, notably, benefactors such as the Ethereum Foundation. However, this model granted these benefactors outsized influence and hence Gitcoin adopted QF in order to minimize the influence of entities like the Ethereum Foundation and to maximise that of smaller holders (Whittemore, 2020). This allows unprofitable but necessary ‘Ethereum infrastructure projects’ to get funded (Moore, 2020; Singh, 2019).

Gitcoin states on its website that it values ‘self reliance, intellectual honesty, collaboration, empathy, stress reducers, inclusivity, and giving first’ (Gitcoin, 2021), which gives a further sense of Ethereum’s ethical imaginary.

4.5 Organizational: Decentralist Engineers

Bitcoin users bond over how owning bitcoins protects them from powerful financial institutions – governments, central banks, and Wall Street (Dodd, 2018, p. 39). They coordinate to build private silos immune from financial collapse. It is an insular form of cooperation: cooperating to be left alone. As Swartz (2018) argues, Bitcoin is a ‘theory of society’ that imagines a societal collapse where hard money still talks (p. 631). It is pessimistic with a dollop of ill-defined utopianism, but where the utopia exists only for those savvy enough to hoard bitcoins. Ethereum does not propose a specific theory of society. Instead, users are free to create their own community on an agnostic world computer. Of course, this agnosticism is in a manner an ideological statement, but one more in tune with the now overshadowed cypherpunks of the early Bitcoin community: an emphasis on creating open-source software for general use.
The founders of Ethereum, and Buterin in particular, have been focused on providing a sustainable decentralised public infrastructure and are rather agnostic about how that infrastructure is used. Here, the analogy might be the provision of a road network, which makes transport and communication possible but also facilitates and shapes new activities – a new shopping centre here, a housing estate there – and new grafted-on infrastructures, such as fibre-based broadband networks. The Ethereum world computer is similar in that it facilitates a multiplicity of activities, but the issue of how it might be or should be regulated is still obscure. At one level, the debate is, similar to Bitcoin, around whether Ether is a security or a commodity, which affects how financial regulators get involved. But at another level, the Ethereum world computer could be considered akin to Facebook or Twitter with a responsibility for the type of activities that it facilitates.

Decentralized Autonomous Organizations (DAO) are a further organisational innovation that has emerged out of Ethereum. At heart, a DAO is a smart contract setting out some rules about community or organizational governance but organized on the blockchain. Buterin (2013) calls DAOs the ‘logical extension’ of the basic smart contract concept that sees a move from a purely financial focus toward the potential of self-organizing communities with ‘long-term smart contracts that contain the assets and encode the bylaws of an entire organization’ (p. 1). In most cases, the DAO members are collectively pooling resources to achieve an end that alone would be difficult or asset intensive. This can mean pooling capital, but it can just as much be know-how and skills (coding, media, design, etc.). Most of the projects found in the popular Decentralized Finance (DeFi) space are run as DAOs and have no formal leadership (e.g. Yearn, SushiSwap) (Chen & Bellavitis, 2020). How DAOs will evolve promises to be an interesting area of study for organisational scholars.

4.6 Aesthetic: Playful Creators

What might strike new users to the Ethereum space, especially those used to the somewhat solemn tone of Bitcoin economic discussion, is the playful streak on display. Arguably the most famous example of Ethereum-based creativity is the collectible games Cryptokitties (Wong, 2017). Cryptokitties uses a special type of smart contract, known as a Non-Fungible Token (NFT), to create a once-off – rare, scarce – token that users can buy and sell, in this case collectible cats on the blockchain (Serada et al., 2020, p. 4). NFT tokens typically refer or point to a character of some sort, a Cryptokitty, a Cryptopunk, or an Aavegotchi hosted online. These characters are visualized by designers to be attractive to collectors. A typical Cryptopunk is a simple and well-made pixelated image where each character has some unique features or set of features, perhaps a Mohawk or a cigar or even both. The most expensive Cryptopunk (#3100) sold for $7.5 million dollars (Kolbrener, 2021).

Another intriguing aesthetic scene present in Ethereum is found in Decentralized Finance (DeFi). DeFi is labyrinthine in its complexity even by cryptocurrency standards and involves cutting-edge and sophisticated smart contracts. To help users navigate their protocols, DeFi projects represent the underlying mechanics either through ultra-minimalist design choices (Yearn or UniSwap) or even absurd ‘food memes’ (SushiSwap and Yam). In either case aesthetic design is central to the project, rather than an afterthought. However, it is the rise of NFT blockchain art where the aesthetic comes to the fore. Building on the collectibles concept, blockchain art sees artists provide authentication, rather than an afterthought. Buterin observes that this can mean absurd minimalist design choices (Yearn or UniSwap) or even absurd ‘food memes’ (SushiSwap and Yam). In either case aesthetic design is central to the project, rather than an afterthought. However, it is the rise of NFT blockchain art where the aesthetic comes to the fore. Building on the collectibles concept, blockchain art sees artists provide authentication, rather than an afterthought.

5 Discussion

As Davidson et al (2018) argue, Bitcoin’s focus on money alone obscures the more expansive economic uses cryptocurrency blockchains can offer:
Blockchains are platforms for building bespoke economic coordination using distributed ledgers augmented with computationally embedded features such as programmable money (cryptocurrencies), programmable contracts (i.e., smart contracts), and organizations made of software (DAOs). These are building blocks of new forms of economic governance. (p. 645)

This description is mostly, of course, a description of Ethereum. Ethereum is a foundational infrastructure that allows others to create their own communities, markets, innovations, etc., on top of it. New forms of decentralized economic organization are the goal, whatever those might be. This is risky because while some of these will be genuine attempts at fair alternatives, some will be scams, as anyone involved in the space will encounter very quickly (Campbell-Verduyn & Hütten, 2019). What is important to Ethereum is that the infrastructure remains permissionless and open to all who want to engage in alternative modes of economic organization. This agnostic cooperativism allows Ethereum to be more malleable and reflexively address issues such as centralization (e.g., Bitcoin) or climate change (staking) without violating any underlying community values because what is valued is the neutrality of the infrastructure as a gateway for decentralized organization, rather than some intrinsic gold-like property of Ether.

Despite its foundational role in the token economy and the explosion of decentralized finance throughout 2020, research into Ethereum has lagged considerably. In contrast to Bitcoin, which enables innovations “around” it, Ethereum enables innovation on top of itself. It is a neutral infrastructure or platform that directly enables token economic activity such as Initial Coin Offerings (ICOs), Decentralized Autonomous Organizations (DAOs), and Decentralized Finance (DeFi). Ethereum’s generativity arises from one of its primary functionalities: tokenization. Tokenization is not just a means for innovation to take place – usually allowing projects to self-fund – but is also the means to implement the broader ideological goals of participants in the token economy, such as open-source development or decentralized governance. The goals of the Ethereum project are often conflated with those of Bitcoin, but this obscures significant differences in community temperament. In particular, Ethereum allows communities and projects to immediately put into place structures and processes that encourage decentralization. However, there is a paradox here because, while the governance of Ethereum itself remains relatively centralized, there is a clear effort to encourage decentralization at the local level.

References


Jasanoff, S., & Kim, S.-H. Kim (Eds.), Dreamscapes of modernity: Sociotechnical imaginaries and the fabrication of power (pp. 1–33). University of Chicago Press.


