

# BLOCKCHAIN AND PARATACTIC MEDIA WORKS

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## Abstract

This paper is about public understanding of blockchain technology. Having been integrated to techno-capitalist ideology, blockchain is commonly represented with its strong attachment with finance. The limited knowledge about blockchain technology in public domain is managed by its conception as an emerging financial tool. Blockchain is represented with dualistic oppositions, either as a utopic revolution or as a dystopic catastrophe. It is also anchored with with crypto currencies and decentralization hype. The use of blockchain technology in other fields of everyday life obfuscated by such dominating representations. This paper suggests rethinking of critical uses of blockchain technology via a funding automaton suggested, designed and performed by a paratactical media work, “Harvest” (2018) by Julian Oliver.

**Keywords:** *blockchain, media art, paratactic, decentralization*

## Introduction

Today, financialization emerges as the latest ubiquitous technology. Blockchain technology is used not only in financial transactions but also in a wide range of social domains, which are currently regulated and governed by centralized institutions.

In this paper, first, I will argue that the dominant representation of blockchain technology is based on a dualistic opposition and this kind of modern representation operates for the reproduction of techno-capitalist ideology. Second, I will argue that the construction of a dominant conception of blockchain as a finance technology emerges as a tactical control apparatus for the sake of super-centralized actors/networks in platform capitalism. In this part, I will critically analyze the hype of decentralization and elaborate on the alternative uses of blockchain technology in various fields of everyday life such as marriage, archiving, ecology, media archeology and real estate. In the last part, the focus will be given to a *paratactical* media work, “Harvest” (2018) of Julian Oliver, which challenges to change this dominant representation of blockchain technology for the sake of commons.

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Based on literature review and ethnographic research, which is based on participative observation and unstructured interviews, the paper aims at becoming another source for alternative knowledge / power production for the public understanding of blockchain technology.

## **1. Public Understanding of Blockchain Technology: A New Finance Tool**

Technology is commonly understood as tools in public domain. It is usually not acknowledged that technology is also “a way of organization”, as Rudi Volti (1988:4) suggested. This dominant understanding of technology leads to a problem in which we would be disconnected from reflexive thinking about technology. With this regard, public understanding of technology studies demonstrate how technology is used, ignored, subverted and innovated by a variety of users.

Public understanding of technology is constructed with social representations. Social representations consist of constructed images, symbols, ideas, and thoughts that permeate common sense and everyday thinking (Moscovici, 1984). They particularly reflect how public makes sense of the unfamiliar via two main processes: ‘anchoring’ and ‘objectification’.

In anchoring, we see an “attempt to settle a new, and therefore strange, meaning into the established geography of symbols of a community; and in objectification, we observe that a new object of knowledge is given a ‘concrete, almost a “natural face”’ (Jovchelovitch, 2001: 173). In this paper, focus is given to the anchoring process of blockchain technology because public understanding of blockchain technology is strongly anchored with finance, particularly with money, which has established symbols in capitalist societies.

Although blockchain is commonly defined as “an open, distributed ledger that can record transactions between two parties” (Iansiti and Lakhani, 2017), today blockchain is commonly represented and understood as a new finance tool. Specifically, it is strongly anchored with crypto currencies in public. According to Talkwalker, a social media analytics and social media monitoring tool, for an account of all blockchain related posts in Twitter between September 15, 2018 and September 8, 2018, %48,6 of all posts include #crypto and #cryptocurrency, and %19 of all posts include #bitcoin.

Although the first work on a cryptographically secured chain of blocks was described in 1991 by Stuart Haber and W. Scott Stornetta, who aimed at designing a system where documents’ timestamps could not be tampered with or backdated, it is stated in Wikipedia that “Blockchain was invented by Satoshi Nakamoto in 2008 to serve as the public transaction ledger of the crypto currency Bitcoin”.

Once we explore how blockchain technology is dominantly represented in public, we can also highlight minor representations of blockchain technology because today this technology is not only used for financial transaction. In recent years, it started to be used in various fields, such as political elections, marriage procedures, divorce contracts, art sales, real estate operations and notarial acts. Yet the dominant representation of blockchain, which constructs a common sense in public, obfuscates such uses.

## **2. Decentralization Hype: A Tactical Control in Platform Capitalism**

Recent research (Kronberger, Holtz and Wagner, 2012; Courvoisier, Clémence and Green, 2013) in public understanding of technology studies reveal that the attitudes, perceptions, opinions and representations of users about novel technologies are being anchored in existing frames of knowledge / power. That means, public is informed about novel technologies mostly with a link to the familiar, existing and centralized frames of knowledge / power.

In platform capitalism, users make use of the platform (i.e. ethereum, Zcash, IOTA) to link existing systems of knowledge and power to the novel infrastructure. In doing so, the platform incentivizes the users to incorporate more of their own interests within its operational layers. The more users the platform has, the more power it gains.

In case of blockchain, users are integrated to various platforms via their profit-making interests. In fact digital currencies has been undoubtedly one of the best performing investments of 2017. Bitcoin, for example, grew by an astounding 1,300% last year. In a recent article published in *The Financial Times*, it was stated, “The current hype around blockchain is partly because of its link to the mania in crypto currencies” (Murphy and Stafford, 2018). More than 1,500 blockchain startups have been launched in 2017, eight times the number of recognized government-backed currencies. That means, there is an emerging way of organization besides central institutions, such as governments.

Hence in recent years, popularization of blockchain along with the current hype around crypto currencies has been anchored also with decentralization hype. If this would be a way of organization to control the use of blockchain, which has been strongly anchored with crypto currencies, what does decentralization hype obfuscate as a tactical control in “algorithmic cultures” (Striphas, 2015)?

We observe that the use of blockchain technology in other domains of everyday life remained weakly developed. In other words, the use of blockchain technology for social, economic and political life has been under control by way of the making of a dominant social representation and public understanding of blockchain technology.

## **3. Distributed Control and Paratactical Media Works**

However recently popularization and social representation of blockchain began to change. A recent article in *Forbes* (Pokrandt, 2018) reveals, “blockchain is more than just currency”. The article has also emphasis on the advantages of decentralized systems, such as “no single point of failure, scalability advantage, democratic decision-making”.

Blockchain is a power-hungry network since data is the capital of production and exchange. Although decentralization hype operated to increase the number of users, users are now faced with an energy crisis, in which national states are not only actors to deal with the problem. Crypto currencies are highly energy consuming and that is costs for users and investors. For the operation of crypto currencies, a cluster of computers performing cryptographic hashing algorithms around the clock are required for verifying transactions made on the platform and this process is known as mining. “These computers can range from massive Bitcoin mining farms in rural China to small DIY mining rigs you can run out of your own home, but all of these mining operations

are incredibly energy intensive. The Ethereum network, for instance, already uses more energy than the island nation of Cyprus, home to nearly 1.2 million people. The Bitcoin network, on the other hand, is on track to consume more electricity than Denmark by 2020” (Oberhaus, 2017).

In New York in April 2016, decentrally generated energy was sold directly between neighbors via a blockchain system for the first time. The goal was to establish a fully decentralized or a distributed energy system, (i.e. not a state or corporation dependent system) in which energy supply contracts are made directly between energy producers and energy consumers (without involving a third-party intermediary) and carried out autonomously.

Hence central institutions and traditional intermediaries, e.g. a bank, are no longer required under this model, as the other users in the network act as witnesses to each transaction carried out between a provider and a customer. As such can afterwards also provide confirmation of the details of a transaction, because all relevant information is distributed to the network and stored on the computers of all users.

Generating supplementary funding for climate-change NGOs in a time where climate science itself is under siege from the fossil-fuelled interests of governments and corporations, Julian Oliver’s “Harvest” (2018), a blockchain based work of critical engineering and computational climate art, uses wind-energy to mine crypto currency. The earnings are used as a source of funding for climate-change research. To develop a funding automaton, Oliver transformed “wind energy into the electricity required to meet the demanding task of mining crypto currency (here Zcash), a decentralised process where computers are financially rewarded for their work maintaining and verifying a public transaction ledger known as the blockchain” (Shahan, 2017).

Acting as a fully functional prototype beyond a media-art context, Julian Oliver’s “Harvest” (2018) emerges as a paratactical work, in which tactical control (anchoring with decentralization hype, crypto currencies and finance) in platform capitalism is reused and subverted for commons.

## **Conclusion**

Within capitalist ideology, technology is mostly represented with binary distinctions (Roseanu and Singh, 2002). If technology is also a way of organization, then we can discuss how novel ways of organization are locked and encrypted within dualistic representations, such as centralized vs. decentralized institutions, hope vs. disaster, utopia vs. dystopia and so on.

By introducing the emerging ways of organization via repeating knowledge / power of the existing and centralized agencies, it also becomes possible to preserve and update their knowledge / power by the changes and deviations suggested by the novel. This adjustment process should be in control for the sustainability of the existing actors, such as the states and the central banks. Hence, the anchoring of blockchain as a decentralized power against the institutions of central authority becomes a mediator for a kind of tactical control in platform capitalism. In this way, while central institutions are updating their knowledge / power along with their organizations and service infrastructures,

alternative uses of blockchain (especially for commons) are procrastinated via the tactical control of public understanding of blockchain technology, which is strongly anchored with decentralization hype and crypto currencies.

This is also the obfuscation of the knowledge / power about the emerging ways of organizing hope, disaster, utopia and dystopia. Still one question remains: How can blockchain be understood as a way of organizing hope and disaster in our societies today? Paratactical works emerge as a way of organization in which artists explore using existing infrastructures in alternate ways. They explore and suggest visionary means of workings for commons.

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