

The Production of Process: The Case of Bitcoin

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Introduction

Process organization studies is an attempt to overturn, and this involves, among other possibilities, switching from an emphasis on being toward becoming, on structure toward process, and on presence toward absence. The process attitude discusses the world as more than what can be captured in representationalist models. It claims that the world cannot be brought to complete presence before us, that we have to resist and treat as suspicious the assumption that in the end the truth will be like a map, where the mapped and the map perfectly correspond with one another. The process attitude claims that the unrepresentable is a part of the narrative of the world, and for this reason process thinking can be a frustrating exercise since it tolerates elusive concepts, such as negativity, withdrawal, and absence. In this paper, we look at a major source of tolerance for what Introna (2019) calls the ‘perhaps ineffable’ work of *absence* in particular (p. 747). We claim that the traditional dominance of the metaphysics of presence has caused the absence of absence in organization studies. In opposing this dominance we can find ourselves on tricky argumentative ground, because the metaphysics of presence is closely linked to *logos*, that is to rationalism, objectivity, and the correspondence theory of truth. In contrast to the standards these epistemologies hold, the language of post-metaphysical thinkers can appear ambiguous, even relativist, especially in a field such as organization studies. Therefore, it would be no harm to demonstrate how deconstructive practice approaches absence and what the consequences are, in processual terms. The most significant consequence, the focus of our attention, is the occluding of

absence in and through organization, but we hold that this absence is never truly “empty” or unproductive; it is actually what is most productive.

Deconstruction is famously not a method (Derrida, 1991: 273). Like process thinking it refuses easy categorization, and, in turn, it tries to resist the superficial categorizing of the phenomena it is reflecting upon (even while inevitably doing so!). This makes Derrida a fellow traveller of process thinking, as Cooper (1989) identified early on, a staunch and restless critic of the metaphysics of presence and a thinker who always thinks and writes in the cautious and careful style of patient *attunement* that process theorizing aims for. We engage with deconstruction to find the productive power of process in absence and do so in relation to the digital currency Bitcoin. At first blush, a niche digital currency might be a surprising choice for this endeavour, but a process perspective reveals much about the motivational impulses behind Bitcoin as a form of human organization. In addition – and this is ultimately our focus here – Bitcoin neatly exhibits many of the tensions involved in our attempts to fix meaning through presence at the expense of absence. Our intention is to root these tensions in the *desire* for presence and stability common to most forms of human organization. In Bitcoin, most of the tensions reveal themselves through a rhetoric of disruptive disintermediation involving the replacement of human institutions with rule by algorithmic infrastructure. Building on recent research – which shows how the enabling technique of Bitcoin, the blockchain, is inescapably supported by a sociality that runs counter to the ideal of “algorithmic authority” – we argue that the processes of sociality, present but denuded of existential content, exist on the surface of the blockchain. What is absent (sociality) is present (algorithms) in an endless chain of differing and deferral, in productive *différance*, the engine of the *lived blockchain*. We conclude with a discussion of how this play of presence and absence constitutes the productive power of process itself and propose a technique for thinking process along these lines, which we refer to as zig-zagging.

In what follows we will show *how* the metaphysics of presence gets expressed within the Bitcoin project. In particular, we will demonstrate how it is enacted through the blockchain’s disintermediation of human institutions using (a) the clock-time of an algorithmic ruleset, (b) the public ledger as a source of transparent and verifiable truth, and (c) a linear and deterministic world-model. The Bitcoin community is motivated in this direction by the ‘regulative ideal’ of decentralized algorithmic authority, an optimal state that

seems unreachable, even to the Bitcoin community, but is worth striving for in principle ([Emmet, 1994](#)). The transition to decentralization is currently managed by a small cohort of powerful developers and miners, centralized clusters who must “temporarily” suppress decentralization for its own good. This contradiction, the presence of centralization in a nominally decentralized system, is a theme that preoccupies much of the social science literature on Bitcoin ([e.g., Maurer et al., 2013](#); Böhme et al., 2015) and speaks to a failure to generate an adequate *counter-logos*, to grant the blockchain a substantive essence that would allow it to function on its own as algorithmically-authoritative. However, we intend to show that the blockchain structure shows signs of a more fundamental tension, that the ambiguities of the project are written into the blockchain itself, that the lived blockchain intrudes upon its surface. Our aim is not to reveal the folly of Bitcoin’s algorithmic governance model, so much as to humanize it, revealing it to be a part of the common human drive to establish a presence through the deeper work of process, just one that is particularly brash about its “will-to-presence.” In short, the blockchain enacts an algorithmic monetary system in an (intentionally) extreme form, leading it directly toward a thematics or grammar of presence, but it cannot completely suppress the absent qualitative flow of life.

Bitcoin Overview

Bitcoin can be described from a technical and social direction— and each has important implications for the other – but it is common to begin with a technical overview, and we will here follow convention. Imagine you wanted to create a digital money system, but you wanted it to have no central locus of authority, such as a bank or payment processor, one that might invade your financial privacy, censor transactions, or charge high fees. This decentralized digital money system would face a major design problem: how to maintain consensus about the ownership of the units of the currency, in the absence of a central authority. In traditional digital money systems, the central authority has unilateral control of a ledger and so it is difficult for users to ‘double-spend’ the currency, to spend more than they have and game the system (Dannen, 2017: 124). In Bitcoin the solution is for each member to have a copy of the ledger, meaning activity on the ledger is transparent to all users, at all times. When transactions are sent, a set of users, known as miners (originally all users, but now a specialist role), individually work to create a new page of the ledger, representing the emerging state of affairs, a process that happens every ten minutes. To select the next page,

known as a block in Bitcoin, each miner races to find the solution to a cryptographic puzzle. The winner gets to publish the next page/block and is rewarded with bitcoins for their effort; this neatly doubles as the method of money issuance in the system. Each block builds on the last, forming a chain of blocks, known as the blockchain (see Figure 1). Once blocks are added they become computationally infeasible to alter, rendering the blockchain immutable, except under extreme circumstances (Drescher, 2017: 137). The system has functioned without major disruption to the blockchain itself since January, 2009.

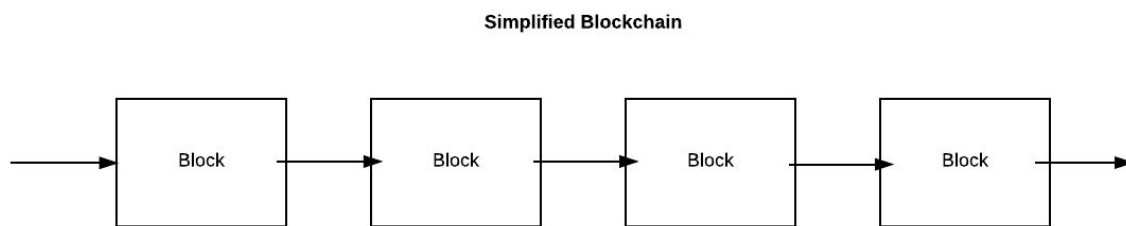


Figure 1

Socially, the technical architecture of Bitcoin exists to eliminate central authorities and replace them with a form of ‘algorithmic authority’ (Lustig and Nardi, 2015). In theory, users of Bitcoin should only need to accept the algorithmic rules governing the blockchain protocol, without the need for intermediaries to facilitate transactions, thereby avoiding the politics of human sociality, broadly construed (Weber, 2016: 19). Dodd puts it succinctly: ‘...the ideology behind Bitcoin is essentially that it removes politics from money...’ (2018: 37). Numerous scholars argue that Bitcoin’s anti-politics is paradoxically what constitutes its politics (Maurer et al., 2013; Kostakis and Giotitsas, 2014; Dodd, 2018). For the most part, the project is governed by a small set of core developers who gained their position through their coding contributions and have been informally habituated into leadership roles. They work in tandem with a powerful cohort of miners to oversee the maintenance of the network, under the watchful eye of the community, who engage in constant chatter about the direction of the project. The overall project is split internally between ideological strains: one group are the cypherpunks, who prefer to focus on digital privacy concerns, and the other are crypto-anarchists, who are more focused on libertarian, economic concerns. These ‘techno-imaginaries’ ([Swartz, 2018](#)) are loosely held together by their preference for

decentralized algorithmic authority over central authority. Since it is what binds the community together, algorithmically-enabled decentralization occupies a privileged place in the Bitcoin system, given that it is what is supposed to ensure that Bitcoin can act as a counterweight to the established authority of traditional money systems. In Bitcoin the discursive *logos* of decentralization is always at work, suppressing local dimensions of the project that are at odds with the purity of the grand vision. These suppressions manifest in the Bitcoin project as a *will-to-presence*.

The Metaphysics of Presence

The metaphysics of presence was identified by Heidegger in *Being and Time*, where he claimed that the common root of traditional ontologies is a bias toward the present (1996: 18). There are two key implications to this. First is that we favour ontological categories that privilege what is immediately present, over what is not. In process terms, this emerges as a tendency to favour categories such as being, rather than becoming (which implies the past and the future). This is also the source of the preference for entities since these are what we directly encounter in the present, in stabilized form, the vagaries and contingencies of movement and change are excluded from consideration. Second, in abstract reflection we push the “now” further out from the effects of time, such that we conceive of the ontological realm proper as an eternal now of perfect presence. This traditionally manifests in other-worldly metaphysics, such as Plato’s forms, but can also turn inward toward the structure of the subject, as we will see in relation to Husserl. Heidegger (1996) adds that the traditional *logos* of ontology, in the sense of the accepted range of discourse on the topic, has thereby earmarked being for the present, to such an extent we will need to engage in a ‘destruction’ of the Western metaphysical tradition (p. 17). Extra weight is added to this *logos* by the close association of an eternal presence with God, such that Heidegger also calls the metaphysics of presence onto-theology (Thomson, 2000). In process organization studies the dominance of the metaphysics of presence is revealed indirectly in the *ad hoc* nature of the philosophers process theory draws upon as counterexamples. The process tradition includes a motley counter-culture that Rescher (1996), a huge influence on process organizations studies, has to fill out with edge cases, such as Hegel (p. 13). In Chia’s (1999: 210) battle between Parmenidean substance and Heraclitian change, it is Parmenides who is

winning the battle. We are dealing here with the millennia-long dominance of metaphysics, and not just the relatively short history of organization studies as a discipline.

Derrida's (1973) deconstruction of metaphysics takes the baseline criticism Heidegger started – that ontologies traditionally favour the present – and situates the tendency in the privileging of speech, which is immediately present to us, over writing, which introduces distance from that immediate presence. He discovers this in his first performance of deconstruction, undertaken against Husserlian phenomenology, which had sought to establish phenomenology as a foundational system of systems ([Derrida, 1973](#)). Husserl aimed to secure phenomenology using the well-worn philosophical tactic of turning inward to the subject, with the goal of eliminating the gap between sign and signified, until the subject found itself in perfect communion with its thoughts and what is thought. This pursuit carries with it, according to Derrida, a subtle valorization of internal speech (1973; 2016). Speech involves the immediacy of enunciation of what we conceive, but is ill-served by writing's lesser power, which always distorts what is intended. According to Derrida (1973), Husserl privileges this inner world of consciousness and internal dialogue, seeking to remove the contingencies of external expressivity, in the hope of arriving at the ever-elusive *timeless structures* of consciousness. This is a complicated variation on the theme Heidegger had discovered, where we expect the end goal of knowledge to be a stable structure, perfectly *present* before us in representational clarity. Yet, Derrida notes that even in internal dialogue there is a slight delay, because the *process* of articulation, even internal articulation, involves a slight *temporal* diffraction from the immediacy of thought. The subject is never in a perfect loop of subjectivity with itself and there is no moment of complete presence, even to ourselves. This desire for a stable centre of meaning is later expanded by Derrida to the more generalized search for a centre, origin or completeness, one where the illusion of structural stability has sometimes been consolidated, in the form of logocentrism.

Logocentrism and *différance*

For Derrida, the tradition of metaphysics is the pursuit of essential structures, whether this structure will be out there (as in traditional metaphysics) or in us (as in Kant and Husserl). This search is the expression of a desire, one motivated by the belief that there is some originary place to get to, a centre, a sense of certainty, or *logos* and this contrasts to the less

tempting possibility that there is no origin, no centre, and no certainty. We seem compelled by the belief that there is an originary place that makes sense, from which all else is a devolved facsimile and, following this, that the task of philosophy would then be to somehow “get back” to it (onto-theologically expressed, to get back to “Him,” God as the source of meaning). This is what makes deconstruction radical, in the blunt sense of upending what is established, because Derrida will argue that philosophy should not be a search for this originary source, to be achieved by eliminating the gap between the signs we use and what they signify, but that signs *as such* are productive and generative in the ways origins, essences, and metaphysical certainties are supposed to be, but without being originary, essential or even certain. Signs are generative processes composing and writing the world in an ongoing, continuous flow, in a ‘world without end’ (or origin, centre, or certainty) ([Cooper, 2007: 1551](#)). Commonly associated with material instantiation, Derrida offers us a wider theory of writing as arche-writing, as involving a never settled processual differing of meaning and deferral of meaning, of *différance*, that disrupts presence. Wherever we find established meaning, or the impulse toward it, we should expect also to find an operation of logocentric suppression necessary to maintain the illusory presence that occludes the work of *différance*. In the Bitcoin blockchain we find three core expressions of logocentrism, of the suppressive will-to-presence, in the form of what we will call ledger time, algocentrism and the blockverse, that all shore up a wider atmospherics of authoritative substantiality.

Ledger time

It has long been recognized by thinkers of time in organization studies that the quantification of time is encoded in a linear clock time (Ciborra, 1999; Orlikowski and Yates, 2002; Kavanagh & Araujo, 1995). Clock time has become real, objective time or, at least, appears as such. Clock time is the logocentric capture of temporality, one where time is not just structured (and thereby structuring), but where time seems to unfold as if according to a plan, disallowing for the genuine creative potential of the future espoused by thinkers such as Bergson (2002). The Bitcoin blockchain encodes its version of clock time as ledger time. Each block in the blockchain contains a timestamp, a cryptographically secure and indelible marking of the time (Narayanan et al., 2016: 31). Each transaction and each block are indexed in the order of the overall blockchain through these cryptographic indices and the chain uses them to establish a relentlessly rigid chronological linearity. The cryptographic

indices further chain the blocks to one another in reverse sequence, reaching all the way back to the original block, known as the *Genesis* block (Antonopoulos, 2014: 28). Just as clock time works to put a structured temporal form on human facticity, ledger time puts chronological form on the extraneous and messy interactions occurring “off-chain.” Ledger time is the privileged time of a community intent on disintermediating corrupt human institutions from the money system and replacing their messiness with an algorithmically pure ruleset. It is a time of linear cause and effect, a temporality that reduces complexity in the service of objective representation, a pure expression of the will-to-presence in technological form. It must accomplish this by a constant suppression of the social time of transaction activity, rendering the lifeworld of its community invisible “on chain,” such that the cryptographic representations of ledger time work to obscure the economic lifeworld of the Bitcoin community behind the quantified world of the blockchain.

Algocentrism

In contrast to most money systems, the Bitcoin blockchain is completely public and therefore completely transparent. It is an objective representation of the ownership of bitcoins in the system, but with identities reduced to alphanumeric public addresses (Antonopoulos, 2017: 9). The blockchain is the community’s shared text, their organizing principle, a shared common truth that they all work to maintain. The transparency of the ledger is essential to the operations of the blockchain because in the absence of a central authority the collective must surveil itself, keeping a watchful eye out for misbehaviour, a self-regulating Panopticon. For this reason the system is oriented toward creating a stable representation of the latest state of affairs in the Bitcoin network, with this snapshot of new transactions and their effects occurring every ten minutes (see Figure 2). On the Bitcoin blockchain every bitcoin is visibly in its place, where it ought to be, from a strict algorithmic perspective. This snapshot should be indisputable – what we call *algocentric truth* – in the sense that the authoritative last word about the ledger is what has been settled algorithmically. This type of one-to-one correspondence is the dream of *logocentrism*: perfect congruence, shorn of the expressivity or contingency of sociality, between us and immediate presence, between us and objective truth. This is the will-to-presence in its epistemologically-realist form, where a representationalist frame reduces the complex nature of a wider, more ambiguous and messy “real” (Chia, 1999: 210). In this case, it is the social field around Bitcoin that is suppressed in favour of the

ideological image of algorithmic truth over human truth. In its pursuit of presence, Bitcoin suppresses both existential time and truth, in favour of ledger time and algocentrism.

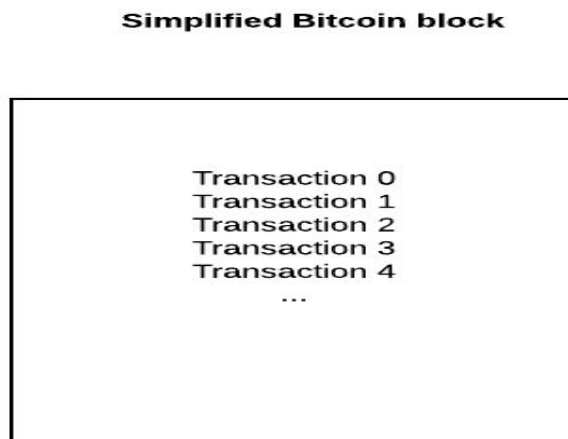


Figure 2

The Blockverse

In his discussions of the universe, William James called the idea of a completely deterministic universe the ‘block universe’ (Proudfoot, 2000: 51). By block universe James meant the universe conceived as one where choice ceases to exist, a universe playing out with a cold, calculated, but ultimately meaningless rigour (from our perspective). In the language applied to the Bitcoin blockchain we often find the aesthetic language of infrastructural *determinism*: the algorithmic protocol indifferently plays itself out, not subject to the whims of existential temporality or truth. The Bitcoin project is specifically intended to be like this, to introduce governance by infrastructural protocol (Filippi and Loveluck, 2016: 10) and to be a form of infrastructural mutualism (Swartz, 2018: 634), although most would agree it falls short of this ideal in actuality. Ledger time and algocentrism exist to establish this infrastructural mode of governance, in conjunction with the aesthetics of determinism characteristic of Bitcoin discourse, that we call the blockverse. The discourse of the blockverse is awash with weighty language, specifically through the motif of the immutability of the blockchain (Drescher, 2017: 137). Immutability is a sacrosanct concept in the Bitcoin project, and it means that when new blocks are added to the chain they cannot be changed, altered or tampered with. The entire blockchain is considered to be a linear history

that cannot be revised or reversed. The blockverse is an unbending world of blocks bound together by chains. Each new block extends the blockchain further into the past, back to the Genesis block, granting it a more robust sense of history, and at the same time establishes the chain ever more in the present. This is a determined and set past and present, where the permutations of the future should play out in an algorithmic manner, and a future that should, in the blockverse imaginary, leaves no room for surprises.

Ledger time, algocentrism and the blockverse express through the blockchain a distinctively metaphysical set of tendencies. They are the will-to-presence in action and in this particular case they further function to undergird another metaphysical tendency, that of substantiality. The metaphysics of substance is familiar to process organization studies as the entitative view, where processes are incidental, merely what happens to the more fundamental substances (Langley and Tsoukas, 2010: 3). Originating in Aristotle, substance metaphysics holds that substantive entities are primary, forming an underlying substrate or foundation, to which contingent properties attach, events happen to, and that might fleetingly undergo processes (Witt, 1989). In a similar logic to the metaphysics of presence, there is an assumption that with just the right framing, with the correct representation that excludes or minimizes the contingent and incidental, we would arrive at the essence of the thing, at its *being*. Bitcoin is commonly conceptualized in this entitative, substantial sense, in order to make it attractive to new users since it is, after all, being offered as an alternative source of stable authority to established institutions. The will-to-presence and will-to-substance seek to render the blockchain as the substantive anchor of Bitcoin's decentralization, that will bridge the trust gap for users who expect organizations to have a recognizable, central core. Bitcoin is a fascinating example of a community attempting to build a cathedral bit by bit over generations, a visible and weighty testament to their belief system and the creation of an alternative source of authority via algorithms. However, there is no doubting that in establishing the blockchain as a monolithic entity, an unmoving obelisk of algorithmic authority, the Bitcoin project strays quite far along the logocentric path.

Genesis and Human Organization

The metaphysics of presence/substance (hereafter metaphysics) wants to hold still the world, stabilize it in an organized form, and proclaim this truth. It is even possible, through

organization, to give the appearance of success in this endeavour, although it often requires the exclusion or repression of what is antithetical to what has been organized. Process is the collateral damage of metaphysics. This is the strong critique of metaphysics, a perspective one might deploy as a means to shake someone out of a long-standing metaphysical slumber. A more generous critique, after the slumber has ended, would view the temporary stabilization of organization as motivated by a fundamental angst in the human condition, a desire to not think the absence, non-origin, or lack of centre, at the heart of things and ourselves. Cooper (1989) astutely points out that for Derrida it is this existential ‘ambivalence’ (p. 481) that drives organization and this is a theme Cooper himself pursued throughout his career. For Cooper (2007) the drive to organization process is, in an originary sense, a pre-conscious striving or impulse that reaches out and transforms the raw, insentient material of the world, in order to create a recursive bridge between inside and outside, to establish what he calls ‘sentient continuity’ (1550). The resultant (but not final) products of generic process and sentient continuity are externalized capacities that originate within us, but made form through human organization and expressed as intersubjective constructions, such as tools, techniques, homes, nations, institutions, etc. These products are always in process, even as they *appear* stable; they are maps that move. From this perspective the human is involved in ‘infinite and unfinished acts of composition’ that appear as stable *structures*, but are the result of an invisible generic *process* (2007: 1549).

Read from this perspective much of what occurs in the Bitcoin project, especially in terms of its drives and impulses, is easier to understand. The blockchain is rhetorically a product of a metaphysically-inflected orientation or attitude. It has as its endgame the replacement of corruptible human institutions with an incorruptible *logos* of algorithmic authority. This authority will be built on a quantified clock-time in the form of the cryptographically-instantiated time of the blockchain ledger. *Ledger time* establishes a clear, transparent model of a state of affairs, enforcing a form of algorithmic truth, an *algocentric* frame that excludes the lifeworld of the actors “off-chain.” All this is reinforced with an aesthetic language of an unchanging, immutable history that is supported by an infrastructure of heavy blocks and weighty chains, the deterministic *blockverse*. Sympathetically-speaking, the Bitcoin community is attempting to externalize a model of decentralized economic organization – we bracket judgment as to its merits – and the blockchain is the product of

their collective pre-conscious striving for human organization, in the face of a disquieting absence of *logos* at the heart of reality. The blockchain is the bridge to the external world that grounds them, a form of sentient continuity, but one that does so in a language that reveals an excessive desire for presence and stability. The reality is that the blockchain itself speaks against both. It is presented as denuded of the vagaries and contingencies of human content, but the traces of sociality are there, in the arbitrary nature of how the transactions are configured, indicating toward the absent source of the transaction, the human agent as living, productive source (see Figure 3). There is no congruence of sign and signified here, and the blockchain is not the perfect speech of monetary freedom, as its advocates would have it. No such structure exists.

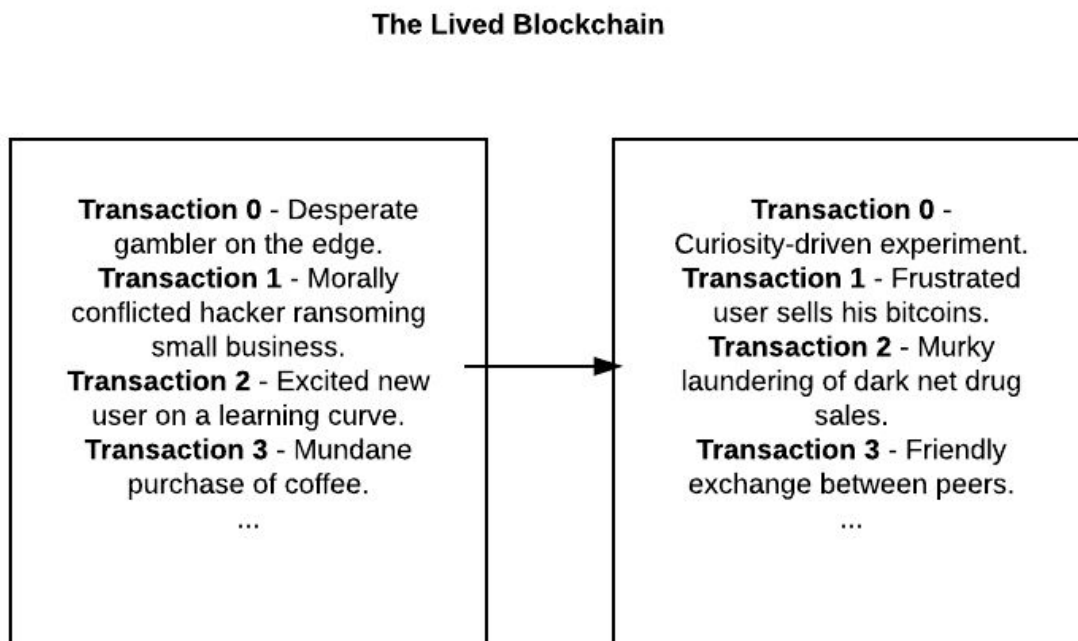


Figure 3

No such structure is possible either. The world seen as an endlessly made and unmade world is a world where what appears is always in the process of disappearing, a world where there is no moment of completion or finality. The only suitable conceptual language we can use here is that of absence, to name how in our attempts (and they are just that) to organize the world into a pure presence of stability, “something” always seems to withdraw, or slip

through our fingers. The movement of that withdrawing is change itself, the oftentimes imperceptible shift from state to state. Unmaking, non-finality, or the impossibility of permanence is the condition for the possibility of change. If things must happen, stability needs to be undermined. In this sense, something “negative” – the movement of undoing or unmaking – is what is most productive of all. The blockchain is undoubtedly precise in its time, transparent in its objectivity, and authoritative in its stability, but it is an algorithmic protocol that never stays still; the voices of its users are endlessly reshaping it at the level of lived micro-processes. The blockchain is at once immutable structure and frenetic process; it is a structure that is in a ten-minute process of change, at all times. The blockchain exhibits the insight of [Tsoukas and Chia \(2002\)](#) well: that change is not a property of organization, but is ‘ontologically prior to it’ (p. 570), even when discursively its users fetishize a more appealing entitative state as having priority. What deconstruction adds to this insight is that the ontological priority of change is obscured by one of the most fundamental human tendencies, that of organization as a means to establish stable presence over productive absence. Ledger time, algocentrism and the blockverse are all expressions of a will-to-presence that is both the work of process and that works to obscure process by hiding it behind presence and substantiality. Process is hidden in plain sight.

Zig-zagging

Derrida felt that the best ways to articulate productive absence is to look at ourselves. His critique of Husserl hinges on showing that subjectivity is divided from itself, a non-locatable void, with seemingly endless depth (Howells, 1998: 24). In much the same way we would not say that we ourselves can be framed and then represented, so too the world cannot be framed and cannot be completely represented, but is an active work-in-process. We propose a name for the tripartite move whereby we recognize the impulse to organize as, at once, (a) the genuine impulse in ourselves to establish, through human organization, an anchor in the world; (b) the will-to-presence in its negative sense of occluding the work of absence through the illusion of presence and stability; and (c) the wider lens that lets us see the interplay between presence and absence from a process perspective. We call this move *zig-zagging*. The word zig-zag fittingly has no known origin, but it does make an interesting appearance in the tradition of philosophy, specifically in Husserl’s remarks that we may on occasion have to *not* follow the systematic path to make philosophical progress (2001: 95). To zig-zag as a

process thinker is to accept the motivations of human organization in relation to presence, to understand the effect of the will-to-presence as the occluding of absence, and ultimately to locate the production of process in an originary, ineffable absence. Here is a demonstration of zig-zagging applied to process itself:

- (a) Process is primary, but occluded by the will-to-presence/substance (by metaphysics).
- (b) This occlusion works in the service of privileged concepts or signifiers. It suppresses or represses others. (zig-zag)
- (c) *However*, this repression is motivated by a genuine existential drive, to anchor ourselves in the world, in the face of angst arising from the lack of a *logos*, a drive that is itself the activity of making and unmaking. (ziz-zag)
- (d) Human organization is driven to establish presence against the backdrop of a wider, unrepresentable context that is not itself present.

Zig-zagging should be generalizable to specific cases. In terms of the Bitcoin blockchain it would run as follows, in the context of our own discussion:

- (a) Process is primary, but in blockchains is occluded by the sheer presence of ledger time, algocentrism and the blockverse.
- (b) This occlusion works in the service of an authority-through-substantiality, establishing the blockchain as fundamentally a *structurally* stable entity, achieved through suppressing human temporality, truth, and non-deterministic activity. (zig-zag)
- (c) *However*, this repression is motivated by deeper *processual* drive to establish a presence in the world, an example of establishing sentient continuity. (zig-zag)
- (d) The Bitcoin project involves, through (a) and (b), the will to establish *structural* presence as a manifestation of a more fundamental *processual* drive, with (c).

This is, of course, to say that Bitcoin exhibits, when we can take a meta-perspective on it, aspects that are present and aspects that are absent. Presence and absence are engaged with one another constantly and this is the production of process in action. The zig-zag is designed to allow us to pass between the two modalities, of what is present and what is absent, while attempting to hold the thread *between* them. The zig-zag is a type of deconstructive practise that can be visualized on the text. It can first aid the author in keeping the interplay between

presence and absence in mind and then later signal to the reader that we are holding this “between-ness” in view. This can happen only indirectly and in this sense the zig-zag is, we hope, a useful visual technique in the process thinker’s toolkit. In a further deconstructive sense we can add that the zig-zag is a reproducible sign that points to movement, difference, deferral, a new spin on *différance*, but tweaked for the specific concerns of process organization studies.

Conclusion

The zig-zag technique allows us to give enter into discussion of the productive origin of human organization, without losing the thread back to the products it produces, which would be unsatisfactory, since a world of pure process without content would be an indescribable nothingness. We are not concerned with nothingness as void, but rather with a productive absence that is unrepresentable, there is a world of difference between the two. This productive absence is not nothing, but “no thing,” no entity. Rather it is one aspect of an *interplay* that is always ongoing in our world, between the appearance of stabilities that are always undergoing change, being made and unmade. In our chosen example of the Bitcoin project we find that what is absent from the blockchain – the complexities of human sociality, broadly construed – cannot be adequately repressed from the colourless representation this activity undergoes when translated onto the blockchain. From one side the existential facticity of human economic activity is rendered absent from its representational depiction in the form of transactional data, its presence on the blockchain. This is accomplished, in the blunt sense, through the mechanisms of ledger time, algocentrism and the block universe. From the other side, the lifeworld of the Bitcoin blockchain is present through the traces of the transaction data, through their *origin* in the complexities of human-decision making processes and activities, where they *show up* in an arbitrary order. The intelligibility that appears transparently on the blockchain is secondary to a deeper, more fundamental processual intelligibility of the *lived blockchain*.

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