

# **Prefigurative Post-Politics as Strategy: The Case of Government-Led Blockchain Projects**

**Husain, S. O., Roep, D. & Franklin, A.**

**Published PDF deposited in Coventry University's Repository**

**Original citation:**

Husain, SO, Roep, D & Franklin, A 2019, 'Prefigurative Post-Politics as Strategy: The Case of Government-Led Blockchain Projects' The Journal of the British Blockchain Association (JBBA), vol. 3, no. 1.

[https://dx.doi.org/10.31585/jbba-3-1-\(2\)2020](https://dx.doi.org/10.31585/jbba-3-1-(2)2020)

DOI 10.31585/jbba-3-1-(2)2020

ISSN 2516-3957

ESSN 2516-3949

Publisher: British Blockchain Association,

**Published Open Access under the CC-BY 4.0 Licence**

**Copyright © and Moral Rights are retained by the author(s) and/ or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This item cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder(s). The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holders.**

## Prefigurative Post-Politics as Strategy: The Case of Government-Led Blockchain Projects

<sup>1</sup>Syed Omer Husain, <sup>1</sup>Dirk Roep, <sup>2</sup>Alex Franklin

<sup>1</sup>Rural Sociology Group, Wageningen University, The Netherlands

<sup>2</sup>Centre for Agroecology, Water and Resilience, Coventry University, UK

**Correspondence:** omer.husain@gmail.com

**Received:** 23 October 2019 **Accepted:** 25 November 2019 **Published:** 14 December 2019

### Abstract

Critically engaging with literature on post-politics, blockchain and algorithmic governance, and drawing also on knowledge gained from undertaking a three-year empirical study, the purpose of this article is to better understand the transformative capacity of government-led blockchain projects. Analysis of a diversity of empirical material, which was guided by a digital ethnography approach, is used to support the furthering of the existing debate on the nature of the post-political as a condition and/or strategy. Through these theoretical and empirical explorations, the article concludes that while the post-political represents a contingent political strategy by governmental actors, it could potentially impose an algorithmically enforced post-political ‘condition’ for the citizen. It is argued that the design, features and mechanisms of government-led projects are deliberately and strategically used to delimit a citizens’ political agency. In order to address this scenario, we argue that there is a need not only to analyse and contribute to the algorithmic design of blockchain projects (i.e. the affordances and constraints they set), but also to the metapolitical narrative underpinning them (i.e. the political imaginaries underlying the various government-led projects).

**Keywords** *blockchain, post-political, decentralization, e-government, technopolitics, prefigurative politics, digital ethnography, civic tech*

### 1. Introduction

A growing body of thought has begun to theoretically and empirically investigate the dynamics of contemporary depoliticization and the alleged ‘disappearance of the political’. Uniting a diverse set of opinions is the idea that “contemporary forms of depoliticization are characterized by the erosion of democracy and the weakening of the public sphere, as consensual mode of governance has colonized, if not sutured, political space” [1, p. 5]. This emerging literature across the social sciences conceptualizes the processes as ‘post-politics’, ‘post-political’ and ‘post-democratic’ [2]–[5]. An important debate within this highly contested sphere concerns the nature of the post-political itself: whether it is a “condition” of contemporary society or a “contingent political strategy” imposed upon it to shrink political agency [6, p. 39]. Using blockchain as a civic or political technology, that could potentially transform political agency, as well as, political processes, has become an oft-cited claim [7]–[9]. While there are many empirical studies that use the lens of the post-political to explore, for instance, governmentality [10], social enterprise [11]

or radical politics [12], we think government-led blockchain projects provide an apt case for addressing some of the crucial questions surrounding the post-political.

It is argued that blockchain projects personify “prefigurative politics” [13] by design: they embody the politics and power structures they want to enable in society. These technopolitical systems achieve this by setting certain “affordances and constraints” [14, p. 726] i.e. the possible courses of action available to an actor. Through this, such systems can influence the behaviour, outcomes, and so forth of any individual taking part in a political process or action within or through it. In other words, the design of these systems prefiguratively determines the agency actors have while using the system. As explained elsewhere, these contingences are deeply political, where they are specifically set up by the designers to delimit an actor’s political agency (anon, forthcoming) [15]. Moreover, particular political imaginaries guide and inform how and why these contingencies will be set up within the system. If governments are beginning to experiment with blockchain as a technopolitical infrastructure to restructure governance, and

allegedly, alter the political agency of citizens, it becomes fruitful to investigate why and how from a post-political perspective. In that, the aim of this discussion paper is two-fold: first, to reflect upon whether and how government-led blockchain projects are politically transformative; and second, in follow on, to contribute to existing debate on the nature of the post-political as a condition and/or strategy.

The fundamental question this paper aims to explore is whether all government-led technopolitical projects (blockchain or otherwise) are inevitably confined within or structured by the ‘post-political condition’? Alternatively, is the post-political a strategy that is being actively implemented to curtail and delimit a citizen’s political agency, and, by effect, recentralize power under the guise of a decentralized technopolitical system?

We begin the article by contextualizing blockchain projects in the language of the post-political literature. After a note on methods, we analyse and discuss our empirical findings. In drawing the discussion to a conclusion, we return to the research questions, reflecting also on whether and how blockchain projects can avoid the “post-political trap” [6].

## 2. The prefigurative post-politics of crypto-anarchists and crypto-institutionalists

Within the blockchain space, one way of understanding the different types of projects is by clustering them. Two higher level clusters of blockchain projects have previously been categorized as: crypto-anarchists and crypto-institutionalists (anon, forthcoming) [15]. The prior cluster denotes initiatives that use blockchain as government, while the latter use it in, for and with government. In this article, we will focus on the latter, crypto-institutionalists, which comprise predominantly of government-led blockchain projects. There are estimated to be more than 100 of such projects currently attempting to transform governmental systems in more than 40 countries [16, p. 1]. Moreover, IBM’s executive report claims that 9 in 10 governmental organizations will invest in blockchain in 2018 and that “a group of government organizations are embracing blockchain technology to reduce frictions to innovation and information and facilitate more extensive collaboration”, which will stimulate trust between citizens and government [17, p. 1]. Blockchain as, in, for and with government is, however, a highly contestable field of study – including, for example, in academic literature [18], online spaces (Slack teams of various projects), popular media [19], governmental reports [20] and even European Commission launched forums [21]. This

contestation, much of it surrounding blockchain’s transformative potential, can be understood historically. Bitcoin (whose underlying technology is blockchain), for instance, was launched in the midst of the 2008 economic crash and accompanying democratic crisis, as a response to the features of what is now commonly referred to as the ‘post-political condition’. Bitcoin was to enable individuals to politically exit from the dominant financial system, while blockchain became the prospective ‘liberator’ from all other state and corporate run institutions [22].

While the precise nuances of the post-political condition are contestable, the general consensus is on the fact that the genuinely political has vanished [5], [23], [24] and “the parameters of political discussion and political action have narrowed to preclude alternatives to neoliberalism” [6, p. 33]. Swyngedouw, following the post-foundational theorists like Badiou, Mouffe, Rancière and Žižek, explains that the post-political:

“refer to a situation in which the political – understood as a space of contestation and antagonistic engagement – is increasingly colonised by politics – understood as technocratic mechanisms and consensual procedures that operate within an unquestioned framework of representative democracy, free market economics, and cosmopolitan liberalism” [1, p. 6]

While this widely shared belief is useful in grasping the general idea, it is the subtleties of post-political conceptualizations which arguably provide a more fertile ground to investigate blockchain projects. Mouffe believes that the hegemonic economic regime has not completely obliterated the political, but rather “repressed” it [5, p. 18]. She believes that there is an absence or lack of political channels that can challenge the “hegemony of the neoliberal model of globalisation” [1, p. 12]. For Rancière, it is not repression, but rather, three types of “disavowal” that explain the post-political: archi-politics (closed communitarian groups such as nationalists), para-politics (where political conflict is reformulated to fit in the representative democratic system), and meta-politics (where politics is reduced to systemic governing of things rather than people) [25, pp. 60–95]. Žižek adds another layer, by explaining that politics is not merely repressed or disavowed in post-politics, but “foreclosed”; it asks us to “leave old ideological divisions behind and confront new issues” [26, p. 188]. In other words, for Žižek, the contemporary political system effectively places the genuinely political outside of the realm of possibilities.

In sum, we can see most of the post-foundational theorists believe that exercise of genuine political agency can only be from outside of the dominant institutional setting. Similar to the conceptualization of blockchain projects, the global socio-economic system seems to prefiguratively embody values and features of the post-political condition: global consensus, economic logic and depoliticization. In the language of blockchain studies, this could be rephrased as depoliticization by design. In any techno-social system that is depoliticised by design, the “potentialities and plurality of agencies are reduced to the heroic, anti-heroic and demagogic” [6, p. 36]. For instance, in the blockchain space, crypto-anarchists consider Bitcoin as a technological ‘hero’, which (debatably) operates outside of dominant institutional systems of finance and economics [27].

In fact, blockchain projects are polarized between those creating parallel systems outside the dominant institutional setting (crypto-anarchists) and those providing efficiency gains within it (crypto-institutionalists) [28, p. 4]. Though very different political imaginaries guide these projects, both groups seem to depoliticise in some way. They share an appeal to, and utilization of, blockchain’s oft-cited design principles: access, disintermediation, decentralization, empowerment and equality [7]. For instance, Bitcoin, as global cryptocurrency, is disintermediated from traditional intermediaries of the financial system such as central banks and stock exchanges. However, its so-called technological hero is an algorithm, which effectively depoliticizes its economy by automating it. There is no agent (governmental or otherwise) politically responsible for its fair functioning (at least, not yet).<sup>ii</sup> Similarly, government-led blockchain projects that decentralize services, or disintermediate processes, by effect, also depoliticize them in that they ‘foreclose’ any possibility of an exercise of (political) agency. Hypothetically, by automating a governance service like a petition system using blockchain, it could be argued that the political responsibility of the service is handed over to the algorithm. However, the political power could and would remain with the government in two ways: first, the government chooses the affordances and constraints and therefore, delimits an individual’s agency by design; second, it leaves itself an affordance to choose or veto certain decisions.

This leads us back to our main question: with regards to government-led blockchain projects, is the post-political a societal condition or a politically contingent strategy to recentralize power?

### 3. Methods: digital ethnography and experts

The empirical data used in this article is predominantly the outcome of a three-year period of immersion in the spaces and practices of blockchain initiatives of the first author. Following a digital ethnography approach, we acknowledged that the “digital has become a part of the material, sensory and social worlds that we inhabit, and the implications there are for ethnographic research” [29, p. 7]. The socio-political and innovation worlds of blockchain are, in part, so fast-paced because of their hybrid nature: geographical, temporal and practical obstacles are less of a hinderance because of the features and possibilities of the digital. Any developments within the field, whether narrative building, political actions, decision making, or planning, take place both online and offline. Hence, only a methodological approach that is responsive to this online-offline dynamic is appropriate and adequate for research in this space.

For this research, we began to search for the social worlds where blockchain innovation for political change was taking place. Unruh expounded that the concept of the “social world” refers to “a form of social organization which cannot be accurately delineated by spatial, territorial, formal or membership boundaries” but instead, by lines and channels of communication and interaction [30, p. 271]. Hence, as digital ethnographers, we entered the hybrid (online and offline) social world of blockchain innovation to understand the communication norms, rules, networks, behaviors, activity infrastructures and operational structures. The socio-political worlds of blockchain and civic tech were located on team collaboration platforms such as Slack, online forums such as Reddit, blogs, social media platforms, conferences, Meetups, GitHub projects and hackathons. Their depth, interrelationships, networks and infrastructure were vastly diverse. While there are many purely online data sources used, this did not replace gathering data from institutional actors and experts that were only accessible in-person. Different methods were used to collect data across the different sites, but were guided by: (i) everyday immersion routines and participant observation (following debates daily); and (ii) participatory action (starting and contributing to online debates, conducting workshops, participating in hackathons and other long-term events). Data used for reflection was mainly in the form of:

- a) Field notes and diary reflections: theoretical and praxis-based reflections engaging in many spontaneous conversations at blockchain events with practitioners,

figureheads, government officials, coders, researchers and activists.

- b) Online immersion routine (participant observation): daily and weekly involvement in forums and working groups; mapping and following the debates.
  - i) 6 team collaboration platforms (unnamed) and 4 Reddit Forums
- c) Digital social archiving: data (mainly in the form of linked pages) formed visual mind-maps with descriptions and storyboards on software such as Pearltrees and Raindrop which are open for the public collaboration and recommendations.
- d) Experts: reflexive and tailored interview methods (from semi-structured to informal) for consulting experts; recorded in audio and/or non-verbatim notes. Twenty-five semi-structured and informal expert interviews were used for reflection in this article. They were conducted at numerous events, meetings and forums occurring between September 2016 to August 2019. While the names of the experts are kept anonymous at their request, the geographical location of the events are included:
  - i) EU Parliament ‘spotlight on blockchain’ and relevant European Commission working groups at the Week of Regions and Cities (Brussels)
  - ii) EU Blockchain Observatory discussion groups (Brussels)
  - iii) Blockchain Pilots Netherlands (meetings) (The Hague, Amsterdam)
  - iv) Dutch Blockchain Coalition (meetings)(Amsterdam)
  - v) Blockchain events in Amsterdam (Bitcoin Wednesday and misc. Meetups)
  - vi) Blockchain Live London – GovTech stream
  - vii) Welsh Council for Voluntary Action (meetings and workshop) (Cardiff)
  - viii) Satori Labs, (Cardiff)
  - ix) Ex civil servants in Welsh Government (Cardiff)
  - x) Welsh Government Chief Technology Office (Cardiff)
  - xi) Decode (EU project – Amsterdam)
  - xii) D-Cent (EU project – Amsterdam)
  - xiii) P2P Models (ERC Project – Spain/Online)

All this data was used in concert with an analytical frame comprising of three core themes: blockchain and government, post-political theory and algorithmic governance. For field notes, interviews and diary reflections: open coding according to grounded theory comprised of ‘conceptual labelling’ which later developed into the two clusters of blockchain innovation (crypto-institutionalists and crypto-anarchists). These higher-

level categories were used to find relationships within and between projects leading to an abstract variation of axial coding, on paper. Furthermore, the most interesting data to analyse was nuances and divisions between the different social worlds of innovators which would rarely interact with each other. The use of the same terms and language (such as decentralization, disintermediation, access etc.) with completely different meanings added a layer of complexity which prohibited us from using traditional forms of coding. Interviewees and forum/team participants were asked to reflect on patterns and categories to validate and cross-check the inferences.

#### 4. Discussion: the empirical puzzle of post-political blockchains

In their critical commentary of post-political thought, Beveridge and Koch explain how “there is a problematic understanding of the relation between the ‘political’, process of depoliticization and the empirical effects of depoliticization” [6, p. 34]. As asserted earlier, the ‘truly political’ supposedly lies outside of the dominant institutional setting, and thus, only projects that subvert the established system merit this status. Accordingly, the ‘political’ is seen as an ontological category that constitutes, defines and structures ‘politics’, the everyday conflicts and struggles of contemporary society. ‘Politics’, is then, the ontic appearance of the ‘political’. Accordingly, if these two concepts “do not belong to the same analytic register”, it becomes very hard to empirically assess “the radical or emancipatory quality of actually existing politics by comparing it to philosophical arguments about a distinct definition of the political as an ontological category” [6, p. 35]. Instead, they argue that “post-politics or depoliticization is an empirical puzzle and should be treated accordingly” [6, p. 36]. The following discussion uses government-led blockchain projects as the point of entry to help decrypt the empirical puzzle of the post-political.

##### 4.1. Shrinking political agency by algorithm

There is a growing body of literature that refers to algorithmic governance as a technological mode of governance that leads to the formulation of political practices [31]–[34]. These scholars engage with the strategies that lead to new forms of decision-making and governance through algorithms. They identify how code, data and technical infrastructure (software) are core features underlying the new modes of governance [35]–[37]. These studies claim and explain how algorithms form new affordances and constraints, new modulations of command and control, and new processes for political engagement and

subjectivation. Ontic politics, in this domain, is the study of how a citizen's political agency is produced within an algorithmic institutional setting. Critical theorists in this field align themselves with post-foundational theorists, claiming that algorithmic governance essentially entails the depoliticization or subjectivation of the political sphere. For instance, Rouvroy claims that algorithmic governmentality constitutes the disappearance of the political subject [34], where individual agency is subjugated by data metrics such as norm, consensus drivers and protocols.

As Lessig elaborates, algorithmic governance signals the ascendance of technopolitical infrastructure over normative and judicial infrastructure [38]. Accordingly, “code has progressively established itself as the predominant way to regulate the behaviour” [39]. With blockchain and smart contracts, some scholars see a shift from ‘code is law’ (code has the effect of law) to ‘law is code’ (law is actively being defined as code). While the judicial system is enforced “ex-post” (after the event) through state intervention, algorithmic systems enforce it “ex ante” (before the event) through code [39]. This sort of “power through the algorithm” [40] prefiguratively determines what is and is not allowed, where the government could remove the possibility of disobedience altogether [41]. For instance, several governments<sup>iii</sup> are experimenting with a land registry system on the blockchain, which would use smart contracts to “increase transparency, speed and trust in property transactions” [42]. Taking the case of Georgia, the National Agency of Public Registry (NAPR) regulates all property transactions in that the blockchain is “private with regards to who can validate the transactions” [43, p. 19]. Though the transparency of this system leads to security and reliability of land titles, it also implicitly means that the only actors with an affordance to commit fraud is NAPR itself. A case study by the JRC shows that the project “does not provide any disintermediation of organizations nor replaces any existing system” [43, p. 20]. Thus, it is safe to assume that while political disobedience is prefiguratively constrained by the algorithm, political power remains with the same actors. Political power is effectively recentralised under the pretence of a decentralized governance system.

Data arising from our own empirical research further supports the claim that most crypto-institutional projects have similar aims. One interviewer explained that blockchain from their government's perspective is not experimented with to alter power relations or decision-making procedures, but rather “automate” processes that no longer require “politicians to be

responsible”. Another respondent reiterated “efficiency gains and cost-cutting” are the primary reasons for experimenting with blockchain, rather than “altering political agency of citizens”. Similarly, our interactions and immersion in the world of ‘GovTech’ (technology for (e-)government) at conferences and online spaces, highlighted analogous themes of ‘handing over responsibility’, ‘algorithm-ing’, simplifying and enhancing political processes. These intentions and themes, albeit not always explicitly, nor with bad intentions, pointed in the direction of depoliticization as an active strategy employed by governmental actors.

#### 4.2. Meta-political reduction to economic order building

Earlier, we mentioned how the dominant economic regime has repressed, disavowed or foreclosed the political from being actualized in the post-political condition [5], [25], [26]. Similarly, we can note that post-politics in “institutional terms is defined by the reduction of the political to the economic – the creation of ‘welcoming business environment’, which inspires ‘investor confidence’” [1, p. 8]. A prime example of this logic is Estonia's e-residency program [44], [45]. Estonia is regarded as the pioneer in e-government leveraging blockchain and other emerging technologies for managing public affairs. Within their multiple programs, e-residency is “essentially a commercial initiative” that functions as an “international passport” to the virtual business world for anyone to carry out commercial activities [46]. “Like citizens and residents of Estonia, e-residents receive a government-issued digital ID and full access to Estonia's public e-services. This enables them to establish a trusted EU business with all the tools needed to conduct business globally” [47]. In this scheme Estonian authorities hold and control data, and arguably use e-residency as a “tool for exerting power as knowledge” [48]. We gathered data to understand the affordances and constraints that the e-residency would impose and how it would regulate the behaviour of an individual. This data was tabulated and fit into the patterns identified within the crypto-institutional space. Furthermore, it also offered cross-validation for the categories assigned to identify differing political imaginaries [15].

Our expert interviews and conversations with crypto-institutionalists, as well as document analysis of vision statements and white papers, show how the Estonian digital project allows for an efficient acceleration of global economic order building. Interviewees were presented prompts about e-Estonia (and other crypto-institutional systems) and were asked to reflect and debate these statements. These corroborated

patterns identified from the immersion and digital ethnography of the crypto-institutional space. We found that the Estonian experiments fit neatly within the category of crypto-institutional projects where there is a recentralization of power through data management. Moreover, decision making power and political processes are relatively unchanged, albeit more efficient and transparent. The project may claim to transform political agency of the citizen, yet, our findings failed to demonstrate any systematic way this was taking place. With regards to the changing role of the citizen or resident and enable more participation, our findings resonated with others claiming that citizens are depoliticized and transformed into passive “consumers” of governance services [49]. We learnt that majority of the ‘benefits’ for e-residents are economic, and, as such, allow an easy, reliable and geographically neutral entry into the EU economy through Estonia.

The Estonian example shows us how a national government can use a post-political blockchain strategy to simplify bureaucratic procedures, open up new markets, and create global consensus. Furthermore, it opens up its borders for business, thereby depoliticizing many local economies where place-based norms, cultures and political structures would have inhibited particular businesses from forming. Contrarily, it can also be said that by allowing detachment from the immediate geopolitical boundaries, it also allows an escape from place-based prejudices, politico-economic structures and constricting norms. While interviewing officials from two national governments (Wales and The Netherlands), we found that the intention of both their offices to use blockchain was indeed to create efficiency and speed up bureaucratic processes. Similarly, the delivery of a workshop at a national third-sector institution (anonymous, in Wales) on collaboration through the blockchain resulted in a Q&A session on the potential efficiency gains for internal management via the blockchain. During another workshop, an expert running several blockchain pilots explained how it takes a lot of cross-departmental collaboration and “traditional project work” to actually implement solutions which would change “anything political”. Emblematically, the JRC even states that “contrary to how it is often portrayed, blockchain, so far, is neither transformative nor even disruptive for the public sector” [43, p. 7].

Crypto-institutionalists show us how it is possible to utilize the hype around blockchain’s transformative potential to reinforce and enhance economic order building and representative democracy. As Atzori points out, democratic transformation cannot simply be “consensus ex post, typical of decentralized

networks” since this would require “adequate quality and extension of participation, consensus ex ante and legitimacy of procedures, protection of minority rights, freedom of participants, and again equal opportunities of access to decision-making” [50, p. 58]. Furthermore, it could be argued that even governments that “cluster around specific interests and temporarily agree on a common set of (algorithmic) rules” [50, p. 58], depoliticize the space for transformative change. Most of the crypto-institutional strategies and rhetoric researched for this article are used to not only reinforce the processes of depoliticization of the socio-economic apparatus, but also, to structurally bound citizens from disobeying or opting for a political exit [28], [51].

### 4.3. The absence of collaboration in the ‘political’

The research underpinning this article began by examining the different citizen-led movements that were working to create and experiment with technologies that transformed the democratic political process. Their efforts were perceived as being rooted in Europe’s democratic deficit [52], lack of participation and collaboration in governance [53], and more generally in political apathy towards government. The radical municipalist movement [54] launched city-platforms for collaborative democracy, participatory budgeting, open consultation and direct democracy projects. In an earlier article, we called this phenomenon ‘place-based civic tech’: citizen engagement technology co-designed by local government, civil society and global volunteers [55]. We noted that “combining online tools with offline collaborative practices presents a unique opportunity for decentralization of power and decision-making” [55]. These initiatives attempt to transform the apparatus of the dominant system by working with it. In the blockchain space, we see some of the same rhetoric of the civic tech movement, but a completely different typology of projects. None of the projects in Jun’s extensive survey of government-led blockchain projects, for example, explicitly leads to a change in democratic processes or participation [16, pp. 3–6]. Conversely, as another study asserts, blockchain experiments can even enable a sort of “technological populism” by exploiting “the rhetoric of empowering the disenfranchised through decentralized decision-making process, enabling anonymous of transactions, dehumanizing trust (trust in computation rather than trust in humans and institutions)” [56].

While carrying out our digital ethnography, by being involved in the online and offline social worlds, carrying out interviews, and attending various digitally mediated events, one of the

predominant themes we noted was the complete separation of the crypto-anarchist projects (i.e. blockchain as government) from the crypto-institutional projects (i.e. blockchain in, for and with government). The paradox of projects operating in parallel planes sheds light on the power of the post-political condition. As asserted earlier, the post-political casts true political agency only on those acts that operate outside and beyond the dominant institutional setting. From this perspective, all crypto-anarchist projects would be genuinely political as they attempt to create new worlds as opposed to work within the established system. Mouffe would, we anticipate, disagree with this approach explaining that strategies to overcome hegemonic forces must engage with “visible nodes of power, which ultimately are apparent in existing institutions of politics” [6, p. 37]. If any blockchain approach fails in doing so, it denies the political potential and “reproduces the very post political condition it wants to attack – by not directly engaging with the institutions of power through which it operates” [6, p. 37].

Two of our interviewees voiced the opinion that blockchain practitioners have several lessons to learn from the ethos and functioning of civic technologists. Another one of our interviewees, who piloted several crypto-institutional projects, lamented about how actors from both sides of the spectrum wholly refuse any form of collaboration or cross-learning. Furthermore, this interviewee stated how some of the most fascinating and feasible political technologies will not make it to the mainstream precisely because of this absence in collaboration. Whereas we see the radical municipalist movement creating a “translocal geography of political action” [55, p. 12] in collaboration with local government, crypto-anarchists such as BitNation or Democracy Earth, seemingly rather create one without any established nodes of power [44], [57]. With regards to collaboration with these nodes, some scholars agree that conceptualizing the post-political as a ‘condition’ is politically disempowering, since it “denies the political status of less explosive forms of contestation” [1, p. 18]. It is through such experimentation that “new political formations will emerge” [11, p. 190].

#### 4.4. The strategy of structures over agency

If the post-political is a condition that contemporary society endures, who are the agents that create and maintain it? According to most post-political thinkers, it would be the hegemonic forces of capital or the structures of representative democracy. This approach proposes that:

‘Any transition initiative and governance arrangement are inevitably confined within – or dictated by – neoliberal and financialization market logics, which themselves resist their own transition. Institutional structures and socially innovative groups which do not – or insufficiently – challenge the larger political economy that frames social services...will constantly find themselves interacting in post-political, consensus-oriented governance arenas’ [58]

In the context of blockchain, it would be the algorithm that creates the institutional structures which would, or would not, challenge the larger political economy. Furthermore, this shows how governmental agents actively design and implement the algorithm, which then creates and enforces contingencies upon its users. Accordingly, we would tend to agree with the critics who consider that post-politics as a field of study “is dominated by description of meta-level discourses and ultimately relies on the analysis of structures rather than agencies” [6, p. 37]. From our research, we learnt that there is a lot of misinformation about the mysterious closed-door decision making and unchanging political agendas of both crypto-anarchists and crypto-institutionalist blockchain initiatives. In fact, any ontological claim about the ‘political’ when it comes to the blockchain space negates the plurality and reflexivity of the agencies that operate in the field. Given that business lobbies, banks, national governments and other institutional agents heavily influence the development of the field, we learnt through our interviews that a lot of the projects are unaware of what could be called their ‘post-political’ strategies.

When it comes to a using blockchain in, for and with government, the two different layers of agency are easier to identify than in the judicial-democratic system. There are those who create the technical design of the system i.e. governmental actors that set the affordances and constraints, and those that participate within this system of contingencies i.e. the citizen or user. While it could be argued that the affordances and constraints are structured by the post-political condition, in this early stage of blockchain experimentation, it is clear that it is being used as a strategy to recentralize power. As one of our interviewees put it, “there’s no way government is going to let this be disruptive...ceding power requires someone to cede power to, and it’s not going to be an algorithm”. Our data analysis pointed in the direction that though the post-political may be a strategy for the governmental actors, it is an unchangeable, and indeed ex ante set of rules for the citizens i.e. a condition.

## 5. Concluding remarks: can blockchain avoid the “post-political trap”?

Our main research question for this discussion paper was whether all crypto-institutionalist projects are structured by the so-called ‘post-political condition’ or whether the post-political is it used a contingent political strategy to delimit citizens’ political agency. Drawing on the above discussion of findings, our conclusion, in response to this question is that the post-political is a contingent strategy employed by crypto-institutionalists to depoliticize various politico-economic processes. However, perhaps a more troubling finding is that it a government-imposed blockchain architecture has the potential to create an algorithmically enforced post-political condition for the citizen. In this scenario, there will not even be the symbolic room we have in contemporary representative democracy for the ‘political moment’, let alone contest the design of the process. Our analysis suggests that this strategy of post-political is underpinned by an almost path-dependent idea of the recentralization of power. The above cited interviewee’s comment “ceding power requires someone to cede power to” helps us, however, to outline some modest suggestions of how blockchain projects can avoid the post-political trap.

The Radical Municipalist and civic tech movement give us one example of how a translocal political network and local government can be operationalized to re-politicize some aspects and features of the socio-political system. In Madrid, for example, there was a self-organized and self-managing group of citizens, along with local government officials that eagerly accept the responsibility of processes such as participatory budgets, citizen assemblies, random election [59], [60] and founding the “Madrid Citizens’ Council” [61]. The political, in this space, is constantly being reconfigured and redefined to incorporate new affordances for the citizen; in the case of Madrid, for self-government. If the political imaginary underlying crypto-institutional projects continues to feature depoliticization, individualism, order building and global consensus, it becomes hard to imagine any technopolitical infrastructure enabling any sort of radical political transformation, at least with regards to a citizens’ political agency. The fact, though, that we are still far from mainstream implementation of blockchain in government creates a space of hope by providing the opportunity to influence the design and implementation of the different solutions.

If we accept that blockchain, as a general-purpose technology, does have the capacity to be politically transformative, to redraw boundaries of access, empower the citizenry, create new forms

of organization and re-politicise the economy, it becomes imperative for researchers, activists and governmental practitioners to collaborate in order to code new values into the architecture of these systems. Our interviewees all express the difficulty of fostering and scaling collaboration between different parties, explaining that it is necessary to be realistic about moving forward. Reflecting on our individual responsibilities and agency, it is necessary that we, as researchers and practitioners, not only analyse and contribute to the design of the crypto-institutional algorithms (i.e. the affordances and constraints they set), but also the meta-political narrative underpinning them (i.e. the political imaginaries underlying the various projects). Without investigating and influencing both, we fall into the post-political trap which focusses on structures and not agencies. One of the strategies that we explored during our research that ontologically reconfigured ‘the political’ was the collaborative effort through the implementation of new ‘politics’ in the Radical Municipalist Movement (where citizens collaborated with the local governments and global group of volunteers to enable a translocal geography of political action). As Swyngedouw and Wilson exert in ending their book, the post-political conclusion is not an “invitation to ditch forms of institutional and political organization...it calls for a new beginning in terms of thinking through what institutional forms are required at what scale and what forms of political organization are adequate to achieve this” [62, p. 309].

It is widely held that the politics and political imaginaries of blockchain require urgent cross-disciplinary attention to guide both conceptualization and experimentation [50], [63]–[68]. This discussion paper is a product of our interest in analysing blockchain in, with and for government through a post-political lens, tying together literature in blockchain studies and algorithmic governance spaces to post-political and post-foundational theory. Continuing to pursue the connections between these bodies of literature and practice together opens up an extensive research agenda regarding both the future of blockchain and study of the post-politics.

---

### Competing Interests:

*None declared.*

### Ethical approval:

*All interviewees gave permission to be quoted, and anonymity has been kept as requested.*

### Author’s contribution:

*SOH designed and coordinated this research and prepared the manuscript in entirety.*

**Funding:**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 674962.

**Acknowledgements:**

SOH would like to thank all those individuals and groups who contributed to the project.

**References:**

- [1] J. Wilson and E. Swyngedouw, "Seeds of Dystopia: Post-Politics and the Return of the Political," in *The Post-Political and Its Discontents*, Edinburgh University Press, 2014, pp. 1–22.
- [2] C. Crouch, *Post-democracy*. Polity, 2004.
- [3] E. Swyngedouw, "Apocalypse Forever?," *Theory, Cult. Soc.*, vol. 27, no. 2–3, pp. 213–232, Mar. 2010.
- [4] E. (Erik) Swyngedouw, *Promises of the political : insurgent cities in a post-political environment*. .
- [5] C. Mouffe, *On the political*. Routledge, 2005.
- [6] R. Beveridge and P. Koch, "The post-political trap? Reflections on politics, agency and the city 'The post-political trap?'," *Crit. Comment. Urban Stud.*, vol. 54, no. 1, pp. 31–43, 2017.
- [7] D. Tapscott and A. Tapscott, *Blockchain revolution : how the technology behind bitcoin and other cryptocurrencies is changing the world*. 2016.
- [8] S. Davidson, P. De Filippi, and J. Potts, "Disrupting Governance: The New Institutional Economics of Distributed Ledger Technology." 2016.
- [9] B. Markey-Towler, "Anarchy, Blockchain and Utopia: A Theory of Political-Socioeconomic Systems Organised using Blockchain," *SSRN Electron. J.*, Jan. 2018.
- [10] I. Blühdorn, "Post-Ecologist Governmentality,," in *The Post-Political and Its Discontents*, Edinburgh University Press, 2014, pp. 146–166.
- [11] W. Larner, "The Limits of Post-Politics,," in *The Post-Political and Its Discontents*, Edinburgh University Press, 2014, pp. 189–207.
- [12] E. Swyngedouw, "Insurgent Architects, Radical Cities and the Promise of the Political,," in *The Post-Political and Its Discontents*, Edinburgh University Press, 2014, pp. 169–188.
- [13] B. Scott, "A Dark Knight is better than no Knight at all - King's Review Magazine," *Kings Review*, 2015. [Online]. Available: <http://kingsreview.co.uk/articles/a-dark-knight-is-better-than-no-knight-at-all/>. [Accessed: 19-Oct-2018].
- [14] Y. Benkler, "Networks of Power , Degrees of Freedom,," *Int. J. Commun.*, vol. 5, no. 1932–8036/20110721, pp. 721–755, 2011.
- [15] S. O. Husain, A. Franklin, and D. Roep, "The political imaginaries of blockchain projects: transition, transformation or creative destruction?," *Forthcoming*, 2019.
- [16] M. Jun, "Blockchain government - a next form of infrastructure for the twenty-first century,," *J. Open Innov. Technol. Mark. Complex.*, vol. 4, no. 1, p. 7, Dec. 2018.
- [17] IBM Institute for Business Value, "Building trust in government," IBM , 2018. [Online]. Available: <https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=GBE03801USEN>. [Accessed: 24-Jan-2019].
- [18] F. Hawlitschek, B. Notheisen, and T. Teubner, "The limits of trust-free systems: A literature review on blockchain technology and trust in the sharing economy,," *Electron. Commer. Res. Appl.*, 2018.
- [19] ConsenSys, "Building Blockchain for Government: Why Governments Need Blockchain,," Medium , 2019. [Online]. Available: <https://media.consensys.net/building-blockchain-for-government-why-governments-need-blockchain-9691d1e21e3d>. [Accessed: 30-Jul-2019].
- [20] European Union Blockchain Observatory & Forum, "Blockchain for Government and Public Services,," 2018.
- [21] European Commission, "EUBlockchain | An initiative of the European Commission,," 2019. [Online]. Available: <https://www.eublockchainforum.eu/>. [Accessed: 30-Jul-2019].
- [22] M. Atzori, "Blockchain Technology and Decentralized Governance: Is the State Still Necessary?," 2015.
- [23] J. Rancière and S. Corcoran, *Dissensus : on politics and aesthetics*. Continuum, 2010.
- [24] S. Žižek, *In defense of lost causes*. Verso, 2008.
- [25] J. Rancière, *Disagreement : politics and philosophy*. University of Minnesota Press, 1999.
- [26] S. Žižek, *The ticklish subject : the absent centre of political ontology*. Verso, 1999.
- [27] D. Columbia, "Bitcoin as Politics: Distributed Right-Wing Extremism,," *Ssrn*, 2015.
- [28] D. Allen, "Discovering and Developing the Blockchain Cryptoeconomy,," 2016.
- [29] S. Pink, H. A. Horst, J. Postill, L. Hjorth, T. Lewis, and J. Tacchi, *Digital Ethnography: Principles and Practice*. London: SAGE Publications, 2016.
- [30] D. R. Unruh, "The Nature of Social Worlds,," *Pac. Sociol. Rev.*, vol. 23, no. 3, pp. 271–296, Jul. 1980.
- [31] R. Bellanova, "Digital, politics, and algorithms,," *Eur. J. Soc. Theory*, vol. 20, no. 3, pp. 329–347, Aug. 2017.
- [32] L. Introna, D. W.-S. & Society, and undefined 2004, "Picturing algorithmic surveillance: The politics of facial recognition systems,," *ssoar.info*.
- [33] L. D. Introna, "Algorithms, Governance, and Governmentality,," *Sci. Technol. Hum. Values*, vol. 41, no. 1, pp. 17–49, Jan. 2016.
- [34] A. Rouvroy and B. Stiegler, "The Digital Regime of Truth: From the Algorithmic Governmentality to a New Rule of Law \*," 2016.
- [35] R. Kitchin, "Thinking critically about and researching algorithms,," *Information, Commun. Soc.*, vol. 20, no. 1, pp. 14–29, Jan. 2017.
- [36] C. Coletta and R. Kitchin, "Algorithmic governance: Regulating the 'heartbeat' of a city using the Internet of Things,," *Big Data Soc.*, vol. 4, no. 2, p. 205395171774241, Dec. 2017.
- [37] danah Boyd and K. Crawford, "Critical questions for big data,," *Information, Commun. Soc.*, vol. 15, no. 5, pp. 662–679, Jun. 2012.
- [38] L. Lessig, *Code and other laws of cyberspace*, 2. ed. New York: Basic Books, 2008.

- [39] P. De Filippi and S. Hassan, "Blockchain Technology as a Regulatory Technology: From Code is Law to Law is Code," Jan. 2018.
- [40] S. Lash, "Power after Hegemony," *Theory, Cult. Soc.*, vol. 24, no. 3, pp. 55–78, May 2007.
- [41] D. Beer, "Power through the algorithm? Participatory web cultures and the technological unconscious," vol. 11, no. 6, pp. 985–1002, 2009.
- [42] A. Mari, "HM Land Registry completes blockchain trial," *Computer Weekly*, 2019. [Online]. Available: <https://www.computerweekly.com/news/252461839/HM-Land-Registry-completes-blockchain-trial>. [Accessed: 23-Aug-2019].
- [43] D. Allesie, M. Sobolewski, and L. Vaccari, "Blockchain for digital government: an assessment of pioneering implementations in public services," 2019.
- [44] C. Sullivan and E. Burger, "E-residency and blockchain," *Comput. Law Secur. Rev.*, 2017.
- [45] N. Heller, "Estonia, the Digital Republic," *The New Yorker*, 2018. [Online]. Available: <https://www.newyorker.com/magazine/2017/12/18/estonia-the-digital-republic>. [Accessed: 31-Oct-2018].
- [46] C. Sullivan and E. Burger, "E-residency and blockchain," *Comput. Law Secur. Rev.*, vol. 33, no. 4, pp. 470–481, Aug. 2017.
- [47] Republic of Estonia, "What is e-Residency | How to Start an EU Company Online," 2019. [Online]. Available: <https://e-resident.gov.ee/>. [Accessed: 23-Aug-2019].
- [48] F. Björklund, "E-government and moral citizenship: the case of Estonia," *Citizensh. Stud.*, vol. 20, no. 6–7, pp. 914–931, Oct. 2016.
- [49] R. Karakaya Polat and L. Pratchett, "Citizenship in the age of the Internet: a comparative analysis of Britain and Turkey," *Citizensh. Stud.*, vol. 18, no. 1, pp. 63–80, Jan. 2014.
- [50] M. Atzori, "Blockchain Governance and The Role of Trust Service Providers: The TrustedChain® Network," *J. Br. Blockchain Assoc.*, vol. 1, no. 1, pp. 1–17, Jul. 2018.
- [51] B. Markey-Towler, "Anarchy, Blockchain and Utopia: A theory of political-socioeconomic systems organised using Blockchain," *J. Br. Blockchain Assoc.*, vol. 1, no. 1, pp. 1–14, Jul. 2018.
- [52] I. Sánchez-Cuenca, "From a Deficit of Democracy to a Technocratic Order: The Postcrisis Debate on Europe," *Annu. Rev. Polit. Sci.*, vol. 20, no. 1, pp. 351–369, May 2017.
- [53] P. Parvin, "Democracy Without Participation: A New Politics for a Disengaged Era," *Res Publica*, vol. 24, no. 1, pp. 31–52, Feb. 2018.
- [54] Weareplanc, "Radical Municipalism: Demanding the Future," We are Plan C, 2017. [Online]. Available: <https://www.weareplanc.org/blog/radical-municipalism-demanding-the-future/>. [Accessed: 22-Jan-2018].
- [55] S. O. Husain, A. Franklin, and D. Roep, *Decentralizing Geographies of Political Action: Civic tech and Place-Based Municipalism*, vol. 13. 2019.
- [56] A. A. Gikay and C. G. Stanescu, "Technological Populism and Its Archetypes: Blockchain and Cryptocurrencies," *SSRN Electron. J.*, Apr. 2019.
- [57] Democracy Earth, "The Social Smart Contract - DemocracyEarth White Paper," 2018. [Online]. Available: <https://docs.google.com/gview?url=http://bit.ly/defpaper&embedded=true>. [Accessed: 14-Mar-2018].
- [58] F. Moulart, A. Paidakaki, and Blotvogel H, "Exploring the politico-institutional dimension of social innovation to repoliticize urban governance arrangements," *Soc. Innov. Urban Reg. Res. ISR. Vienna Verlag der Österreichischen Akad. der Wissenschaften.*, pp. 11–22, 2018.
- [59] B. Garcia, "New citizenship in Spain: from social cooperation to self-government," *Citizensh. Stud.*, vol. 21, no. 4, pp. 455–467, May 2017.
- [60] Y. B. Abati, "Random election, the G1000 and deliberation to change Madrid," *openDemocracy*, 2017. [Online]. Available: <https://www.opendemocracy.net/en/democraciaabierta/random-election-g1000-and-deliberation-to-change-madrid/>. [Accessed: 04-Oct-2019].
- [61] newDemocracy Foundation, "The City of Madrid Citizens' Council," 2019. [Online]. Available: <https://www.newdemocracy.com.au/2018/11/15/the-city-of-madrid-citizens-council/>. [Accessed: 04-Oct-2019].
- [62] J. Wilson and E. Swyngedouw, "Conclusion: There Is No Alternative," in *The post-political and its discontents : spaces of depoliticisation, spectres of radical politics*, 2014, p. 326.
- [63] P. De Filippi and B. Loveluck, "The Invisible Politics of Bitcoin: Governance Crisis of a Decentralized Infrastructure." 2016.
- [64] S. Davidson, M. Novak, and J. Potts, "The Cost of Trust: A Pilot Study," *J. Br. Blockchain Assoc.*, vol. 1, no. 2, pp. 1–7, Dec. 2018.
- [65] M. Atzori, "Blockchain Technology and Decentralized Governance: Is the State Still Necessary?," 2015.
- [66] A. Alketbi, Q. Nasir, and M. A. Talib, "Blockchain for government services-Use cases, security benefits and challenges," in *2018 15th Learning and Technology Conference, L and T 2018*, 2018.
- [67] Dutch Blockchain Coalition, "Vision Document: Blockchain for Good."
- [68] V. Shermin, "Disrupting governance with blockchains and smart contracts," *Strateg. Chang.*, vol. 26, no. 5, pp. 499–509, Sep. 2017.
- [69] C. Green, "Real World Examples of Governments Moving Land Titles to a Blockchain - ZKY Token Sale," *Zooky*, 2019. [Online]. Available: <https://zky.io/2018/07/16/moving-land-titles-to-blockchain/>. [Accessed: 23-Aug-2019].

---

<sup>i</sup> Slack teams of Democracy Earth, Ashoka, Consul, Decidim and several others which requested for anonymity

<sup>ii</sup> In blockchain studies, there is a growing body of literature around algorithmic governance. This is also one of the reasons why there is urgent call for regulation within the blockchain space, particularly with regard to cryptocurrencies.

<sup>iii</sup> India, Sweden, U.K., Ghana among others are launching pilots and experiments. For instance, refer to [69].