



## UvA-DARE (Digital Academic Repository)

### White papers on dissent

*Politics and poetics of blockchain*

Cueto Gutierrez, B.

#### Publication date

2022

#### Document Version

Final published version

[Link to publication](#)

#### Citation for published version (APA):

Cueto Gutierrez, B. (2022). *White papers on dissent: Politics and poetics of blockchain*.

#### General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

#### Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

White Papers on Dissent  
Politics and Poetics of Blockchain

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor  
aan de Universiteit van Amsterdam  
op gezag van de Rector Magnificus  
prof. dr. ir. P.P.C.C. Verbeek  
ten overstaan van een door het College voor Promoties ingestelde commissie,  
in het openbaar te verdedigen in de Agnietenkapel  
op donderdag 10 november 2022, te 10.00 uur

door Barbara Cueto Gutierrez  
geboren te Asturias

### ***Promotiecommissie***

#### *Promotores:*

prof. dr. C.M.K.E. Lerm-Hayes	Universiteit van Amsterdam
prof. dr. E.L. Sitzia	Universiteit van Amsterdam

#### *Overige leden:*

prof. dr. ir. B.J. de Kloet	Universiteit van Amsterdam
prof. dr. M. Schavemaker	Universiteit van Amsterdam
prof. dr. G.G. Sholette	City University of New York
prof. dr. N. Shah	ArtEZ University of the Arts
dr. P.A. Andrade Da Silva Albuquerque	Universiteit van Amsterdam
dr. M. Mollona	Goldsmiths University of London

Faculteit der Geesteswetenschappen

Before starting to read my thesis, I recommend listening to the podcast I made accompanying my research.

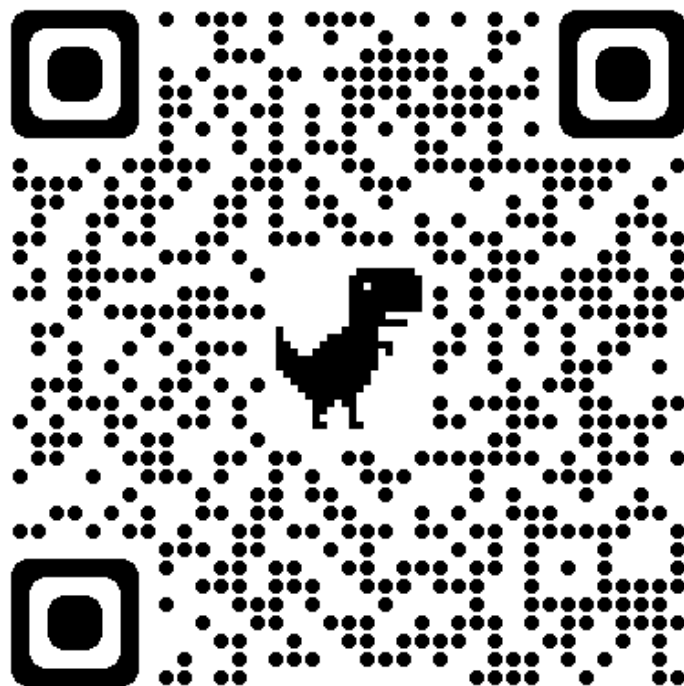


Figure 1. QR Code to Podcast



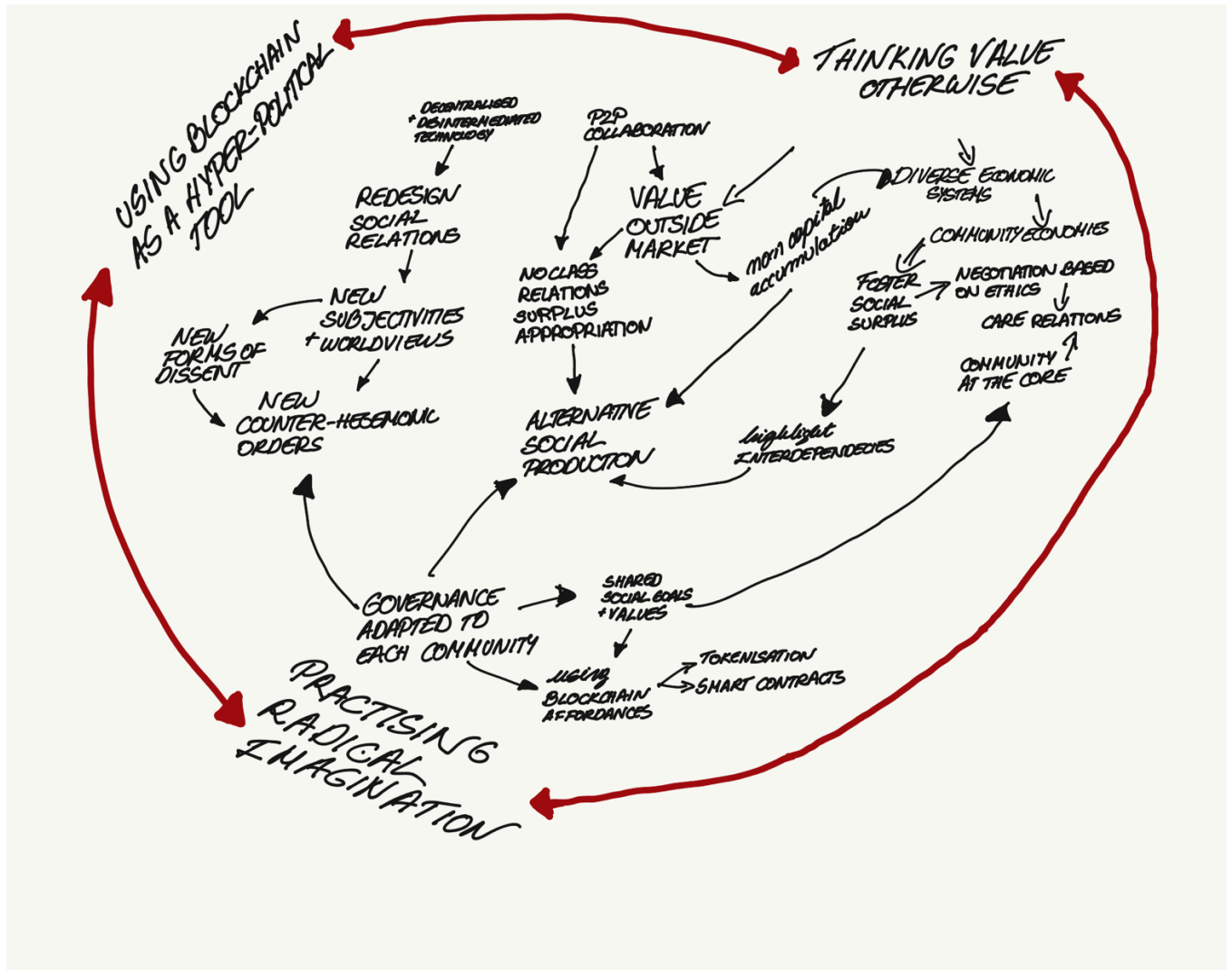


Figure 2 Mind map by the author explaining *White Papers on Dissent*.

## Table of Contents

<b>INTRODUCTION .....</b>	<b>7</b>
1.1. METHODOLOGICAL APPROACH .....	9
1.1.1. <i>Curating The Digital</i> .....	14
1.1.2. <i>Weak Theory</i> .....	16
1.2. ACTION RESEARCH .....	17
1.3. OVERVIEW OF WHITE PAPERS ON DISSENT .....	23
<b>PART I: BLOCKCHAIN AS A SOCIAL TOOL .....</b>	<b>28</b>
1.1 HOW TO RE-THINK VALUE .....	30
1.1.1 <i>Queering The Economic Language</i> .....	31
1.2 DECENTRALISATION & P2P VALUE CREATION .....	35
1.2.1 <i>Value Types in P2P Systems</i> .....	37
1.3 VALUE SYSTEMS IN BLOCKCHAIN TECHNOLOGIES .....	39
1.3.1 <i>Trustlessness: Algorithmic trust in times of crisis</i> .....	39
1.3.2 <i>Making Diverse Values Visible with Blockchain Technology</i> .....	44
1.3.3 <i>Governance In Commons-Oriented Communities</i> .....	48
1.4 ISSUES RELATED TO BLOCKCHAIN REGULATORY FRAMEWORKS .....	53
1.4.1 <i>Para-legality</i> .....	53
1.4.2 <i>New Hierarchies And Bias</i> .....	54
1.4.3 <i>From Ex-Post To Ex-Ante: Transformations In Normativity</i> .....	54
1.5 USING BLOCKCHAINS AS POLITICAL TOOLS .....	56
1.5.1 <i>Overcoming Neutrality</i> .....	57
1.5.2 <i>Blockchain As A Counter-Power Tool</i> .....	59
1.5.3 <i>The Potential of Blockchain to Challenge New Social Movements</i> .....	64
1.6 CONCLUSION .....	66
<b>PART II: DIGITAL CRITICAL PRACTICES .....</b>	<b>69</b>
2.1 DIGITAL ART AS INSTITUTIONAL CRITIQUE .....	70
2.1.1 <i>The First Wave Of Institutional Critique And Early New Media Art</i> .....	71
2.1.2 <i>The Disappearing Figure Of The Author and The Immateriality Of The Work</i> .....	73
2.1.3 <i>The Second Wave of Institutional Critique and New Media Art</i> .....	75
2.1.4 <i>Digital Art As Extra-disciplinary Investigations</i> .....	76
2.1.5 <i>Digital art's Institutional Critique</i> .....	79

2.2 TOWARDS SOCIALLY ENGAGED DIGITAL ART .....	80
2.2.1 <i>The Political Undertones Of Digital Art</i> .....	81
2.2.2 <i>Shifting Authorship &amp; Spectatorship</i> .....	83
2.2.3 <i>HyperReadings</i> .....	85
2.2.4 <i>HyperReadings As A Digital Social Practice</i> .....	95
2.3 SOCIAL BLOCKCHAIN PRACTICE ART .....	96
2.3.1 <i>As Agonistic Critical Art</i> .....	98
2.3.2 <i>The Legacy Of The Avant-Garde</i> .....	102
2.3.3 <i>As Social Sculpture</i> .....	106
2.4 CONCLUSION.....	109
<b>PART III: NEW IMAGINARIES IN SOCIAL BLOCKCHAIN PRACTICE ART .....</b>	<b>112</b>
3.1 THE RADICAL IMAGINATION TO CREATE BLOCKCHAIN .....	113
3.1.1 <i>Navigating Between Social Imaginaries And Radical Imagination</i> .....	114
3.2 UTOPIAN FUTURES OF BLOCKCHAIN .....	115
3.2.1 <i>Referents Of Utopian Thinking</i> .....	116
3.2.2 <i>Lex Cryptographica As Simulacrum</i> .....	117
3.2.3 <i>Anxious Hope</i> .....	118
3.3 BLOCKCHAIN AS A STRUCTURE FOR PREFIGURATION .....	119
3.3.1 <i>Five Dynamics Of Prefiguration In Blockchain Environments</i> .....	120
3.3.2 <i>Prefigurative Politics And Affectivity In Blockchain</i> .....	123
3.4 BLOCKCHAIN SOCIAL PRACTICE ART AS FREE SPACES .....	125
3.4.1 <i>Free Spaces And Prefiguration In Transition Studies</i> .....	126
3.4.2 <i>Re-enactment</i> .....	128
3.5 SOCIAL BLOCKCHAIN PRACTICE ART AS THE PRE-ENACTMENT OF AGONISM.....	129
3.5.1 <i>Social Blockchain Practice As A Counter-Hegemonic Project</i> .....	130
3.5.2 <i>As The Pre-Enactment Of Agonism</i> .....	134
3.5.3 <i>As The Embodiment Of Multiverses</i> .....	136
3.6 CONCLUSION.....	139
<b>PART IV: ANALYSIS OF <i>WHITE PAPERS ON DISSENT</i>.....</b>	<b>142</b>
4.1 <i>WHITE PAPERS ON DISSENT</i> AT THE ASIAN CULTURAL CENTRE IN GWANGJU.....	143
4.1.1 <i>Practical Development Of The Exhibition</i> .....	143
4.1.2 <i>Curatorial Approach: A Repertoire</i> .....	144
4.1.3 <i>Critical Analysis</i> .....	145
4.1.4 <i>Summary</i> .....	159
4.2 <i>WHITE PAPERS ON DISSENT</i> AT VAN ABBEMUSEUM DURING DUTCH DESIGN WEEK 2021 .....	161
4.2.1 <i>Practical Development Of The Project</i> .....	162
4.2.2 <i>Critical Analysis</i> .....	164

4.3 CONCLUSION.....	192
<b>CONCLUSION .....</b>	<b>196</b>
<b>BARBARA CUETO: WORK PREVIOUSLY MADE PUBLIC .....</b>	<b>208</b>
<b>REFERENCE LIST .....</b>	<b>209</b>
<b>LIST OF FIGURES.....</b>	<b>239</b>
<b>PHD SUMMARY .....</b>	<b>241</b>

## Introduction

A political manifesto is, according to historian Martin Puchner, “a genre that uniquely represents and produces the fantasies, hopes, aspirations and shortcomings of modernity” (2006, p. 7). It is a text dedicated to doing things with words, is invested in changing the world, and is a means to an end. After a century of manifestos printed in newspapers, literary magazines, billboards, and flyers, white papers have taken over in the digital sphere, acting as an analogue to manifestos. Traditionally, though, white papers were legislative documents presenting policies, actions, and methodologies, often inviting public comment. However, like the political manifesto, this format switched scenery, becoming ever-present in the digital realm.

A sub-form of the genre, the artistic manifesto, owes much to the futurist Filippo Tommaso Marinetti, who took features of the political manifesto, such as tempo, brevity, synthesis, aggression, and the absolute value of novelty, and applied them to poetry. In doing so, he was able to extract what Puchner has called the purest gesture of this format, “the rupture with the past and its invocation to the future” (2006, p. 74). This composition was repeated as a mantra in manifestos that came after, and would also trickle through to the white paper, much later on.

A white paper has become an idiosyncratic text to propagate digital innovation. It conjures a radical future rendered into a commercial pursuit. As such, it has come to represent the hopes, aspirations, and shortcomings of today’s society, all tinted with the aura of hyper-capitalism. Both manifestos and white papers are written using an anterior future, claiming that their authority will have been provided by the changes they themselves want to bring about. Nevertheless, this future perfect construction turns out to be merely a claim, a pose, a desire (Puchner 2006, p. 24). They overcompensate for their powerlessness with exaggerations but, without their presumption, futurity, or projection, they would cease to

exist. The future and its near cousin progress are fundamentally entwined in this genre and are radically woven into this thesis.

The current project starts from the question: in what language are today's utopias written? In answering, I focus on blockchain, not so much because of its economics, but because of the ways it lets us imagine the world. To look at the world imaginatively means, collaterally, to stare at it critically. This fundamental human act, our capacity to envision the possibility of doing things otherwise, is also our potential to trigger change. And, thus, I wonder, what is the role of art conveying the next utopia?

The sense of blockage that looms during the current pandemic, ever-present economic crisis, and political disaffection also led me to the next question: how can dissent be enacted now? *White Papers on Dissent* is a quest hunting for alternative ways of looking and acting against the status quo. This thesis considers projects using blockchain technology because of their radical approach to the future, their desire for innovation, and their capacity to convey a utopia that is still underway, while representing today's craving for change.

These projects and their proposals could be said to portray an avant-garde. If so, then I use this term in the most literal way, meaning those who are "ahead" and thus, perhaps, also a step closer to utopia. Marx used the same word to name the utopian socialist. Later on, artists, movements, and schools became the advanced groups and, with them, they brought ideas of progress and rupture, along with manifestos as tools to present their single collective voice. Likewise, here, artistic practices will be examined in terms of their capacity to enact the hopes and desires of communities that evoke novel visions of a moment to come. Neither a manifesto nor a white paper, this thesis uses those forms' potential to summon future forms of social coordination that will have overcome hegemonic economic principles, like the accumulation of capital and the focus on productivity<sup>1</sup>. I don't consider all blockchain projects as future saviour of our unhealthy economy and solution to our polarised governance. I am not investigating NFTs either. Or any artistic projects using blockchain. I

concentrate my research on the projects that think *through* the technology and that are dedicated to social production and reproduction.

With this future perfect construction, I intend to formulate blockchain as a tool for radical imagination and a device that can reformulate a notion of value beyond market relations. To me, it is a way to encapsulate desires or hopes and, collaterally, it also states dissent.

### **1.1. Methodological Approach**

*White Papers on Dissent* is a research project with two inputs: one theoretical and another practical, which takes the shape of two curated projects pursuing an activist approach. The project uses two curated projects, one at Asian Cultural Centre (ACC) in Gwangju, South Korea, the other at Van Abbemuseum in Eindhoven, The Netherlands, which became same-titled podcast that accompanies this investigation. I borrow this approach from artistic research, as it enables a reciprocal process whereby practice and theory informs one another: the curated projects simultaneously communicated the research whilst further developing and deepening the discourse. The curated projects that accompany this investigation are tools of research and impact that help to communicate the findings of my research. Instead of delving in the workings of artistic research as a methodology applied to my curatorial practice, I locate my research through two interconnected approaches: *curatorial activism* and *action research*. Although I acknowledge the influence of artistic research in much of my thinking, I prefer to position my investigation closer to two theoretical pillars sustaining my thesis: the notion and implications of community economies by J. K. Gibson-Graham (1996, 2006), themselves proponents of action research; and, secondly the working and influence of digital activism in social organising. Therefore, I firstly consider the activist turn to curating, which informs the discursive programme leading this research, before explaining its relation to action research.

Beginning with curatorial activism, we might refer to the landmark article in *ArtForum*, in which Andrea Fraser claimed, “now, when we need it most, Institutional Critique is dead, a victim of its success or failure, swallowed up by the institution it stood against” (2005, p. 100). A feeling of defeat and frustration by artists, or greediness by

institutions, pervades this article. The art world has yet again corrupted another critique form. The feeling was that, in a similar way to the sentiment identified by Lucy Lippard in 1973, institutions across the globe had internalised the first wave of Institutional Critique, which focused on power structures of the art world and, consequently, its financial and political principles.

Museums do not stimulate any attempts to oppose or destroy themselves, they rather seek to modify and solidify themselves. Thus, as art historian Simon Sheikh argues, “the institution is not only a problem, but also a solution!” (2009, p. 1). In this way, art institutions perform what another art historian, Nina Möntmann, has described as a type of auto-critique (2008, p. 155), which addresses their political and economic support structures. For example, the Tate Art Galleries no longer accept donations from the Sackler family, its long-term supporter.<sup>2</sup>

Although their critique is different from artistic praxis, institutions also function critically. Political theorist Chantal Mouffe asserts that they could also help subvert the ideological framework of consumer society. It is precisely because they are vested in near-immunity against the dominance of the market that they can offer spaces “for resisting the effects of the growing commercialisation of art” (Mouffe 2013, p. 101). This newly acquired accountability has led the institution to both internalise its critique and face its own. Art historian Magriet Schavemaker (2018) relates this change to the discursive turn in art institutions around the world. This shift moves away from exhibitions as main output to remodel themselves into network organisations, that conduct research with a myriad of shapes and results. According to her, “one finds a strong focus on institutional critique and antagonism, bringing counter-voices inside the museum. (...) However, one might also argue that despite their potential for criticality and depth, these practices ultimately remained somewhat unchallenging and homogenous when it comes to both audience and outreach.” (Schavemaker 2018, pp. 89). In this framework, I would like to point out to the example of experimental institutionalism in museums like Van Abbe, in Eindhoven (The Netherlands).

---

<sup>2</sup> See <https://www.theguardian.com/artanddesign/2019/mar/21/tate-art-galleries-will-no-longer-accept-donations-from-the-sackler-family>



Under the directorship of Charles Esche, it has developed a unique voice bringing social practice art, embodying institutional critique and putting forward antagonism by incorporating counter-hegemonic voices.

The counter-hegemonic potential of the art institution now relates both to the challenge to provide inclusivity and accessibility, as Schavemaker indicates (2018). Hence, it is not only necessary to tackle the art world's financial infrastructure, but also to rewrite the canon. Many museums across the world are changing their display trying to represent a less white, male and euro-centric version of art history. I would argue that this change in perspective operates similarly to the second wave of Institutional Critique, which redirects attention towards the politics of representation (Holmes 2004, p. 57). Collaterally, the figure of the curator has also gained prominence in the process of critique. As Möntmann acknowledges, these curators “don't only invite critical artists, but are themselves aiming to change institutional structures, hierarchies and functions” (2008, p. 155). This reciprocal process changing the agent of critique is presented as curatorial activism. According to curator Maura Reilly, it aims to rediscover what the canon conceals and suppresses, as well as to produce new canons that supplement the traditional ones, and thus its practitioners “challenge hierarchies and assumptions, initiating debate and circulating new knowledge” (2018, p. 215). Naturally this also presents a question: how can curators, and especially independent ones, contravene the politics of the institution that also provides them with livelihoods?

Although Reilly's research is focussed almost exclusively on gender, sexual orientation, and geographical examples, I believe that curatorial activism could be a much more encompassing term. Consequently, I argue that this approach to curating could both review economic and political aspects, while also including a gender, sexual, or geographical outlook. This overlapping definition of curatorial activism guided the development of the curatorial projects that led this research.

Curatorial activism works analogously to art, be it critical, activist, or social practice. These are closely related practices, aimed at presenting alternatives to the neoliberal order. However, they engage differently with the art institution. Activist art, for Lippard (1984) and

Boris Groys (2014), does not just criticise social and political structures, but intends to provoke change. Paula Serafini concurs and clarifies that Social Practice Art “takes one step outside the art institution and into other spheres” (2018, p. 6). In the same vein, as philosopher Oliver Marchart explains, activist art “will change and abandon conventional media, leaving art institutions behind, and employing strategies of political activism” (2019, p. 24). Critical practices, in turn, stay within the art institutions because it is where bourgeois hegemony can be defended and contested (Marchart 2019, p. 25). How can these positions be reconciled and translated in curatorial terms?

In the curatorial projects *White Papers on Dissent*, I have tried to synthesise these approaches, since I share their intention: to present counter-hegemonic art forms and affect social change. First, while the project occurs within the art institution—the Asian Cultural Centre and Van Abbemuseum—its tentacles spread across the board. Many of the projects are not grounded in the art world; rather, they have an activist nature or come from the technological and economic spheres, as activist art and social practice does. However, it positions itself in the museum to prioritise a type of engagement that is able to contest hegemonic principles of representation, like critical art. As a practice-based PhD, I acknowledge an advantage: I could seamlessly move across different institutional infrastructures. This meant counting with academic support from the University of Amsterdam, while also accessing arts funding, which in my case came from the museums ACC and Van Abbemuseum, and different foundations such as Creative Industries Netherlands and Acción Cultural in Spain. Moreover, I strived to offer a transnational and non-euro-centric view on blockchain technology. To do so, I based my research on examples of exhibitions I curated in Russia during the Moscow Biennale for young Art<sup>3</sup>, the research exhibition I curated for the ACC in South Korea during a fellowship at the museum; together with research trips to Hong Kong and Singapore. This wide approach is meant to bring together different examples and *modus operandi* rarely seen in European contexts and thus,

---

<sup>3</sup> In particular, I will use the example of the digital artwork *HyperReadings* as a way to explain how digital artworks can be deemed socially engaged practices. In this way, I try expanding the canon to include digital art within more established frameworks of thinking and art-making. This can be found in Part II

deepening the research that too often only focuses on Europe and the United States. These different backgrounds helped creating a pool of resources and outlooks that exceeded traditional art and academic contexts, providing *White Papers on Dissent* a cohesive and expanded infrastructure that made possible a more critical approach.

If we look again at Reilly's (2018) definition, curatorial activism would be related to the re-evaluation of the canon. My project collaterally revises it, as it connects blockchain with diverse, commons-oriented economies, which are often related to feminist approaches to economy. As a result, this curatorial project unites these different perspectives, moving in and beyond the exhibition, becoming both critical and activist, and joining, then, two waves of Institutional Critique. Hence, it articulates a double analysis, which re-examines both the economic and political aspects of blockchain, and includes representation politics, through a counter-hegemonic outlook on economy. Moreover, as social practice, it engages with different actors and communities, giving them agency in the hope of bringing change on a multilocal scale.

### ***Giving Agency As A Form of Activism***

To endow the audience with agency, the curated programme of *White Papers on Dissent* developed a programme aimed at stimulating meaning-making. Due to the complexity of the topic, it concentrated on providing different access points and levels of involvement through panel discussions, workshops, and performances. This activist approach is an active process: it constantly reassesses its relation to the institution and its workings, and its modes of representation; whilst stimulating participation to foster social change. In this way, the museum abandons neutrality to become a site of contestation, along with articulating critical views about its history, theories, and practices (Dewey 1916/2008; Mairesse & Desvallées 2007; Sitzia 2019; Vergo 1989).

In turn, curatorial activism entails giving agency to the audience. However, as Emilie Sitzia (2019), a scholar specialising in museum audiences argues, these efforts are, in museology, often confused with empowerment and ownership. The former is socially and culturally determined, whereas the latter is related to autobiography and self-narrative (Sitzia 2019, p. 187). To provide agency means three interactive concepts: intention, action, and

outcome/effect. The first defines goals, the second relates to active participation, and the third expresses the relation between the goals meeting the results. Consequently, there could be empowerment without having agency over the project; or ownership without intention or action (Sitzia 2019, p. 188).

In the case of *White Papers on Dissent*, the curated programme intended to create meaning-making events as a form of participation. Following Sitzia's findings (2019, p. 193), in this type of discursive and interactive programme, the audience can hold agency and, subsequently, potentially achieve social change. In these activities, the audience is active, decoding and interacting with a series of proposals, whether in a workshop or a panel discussion. The audience was either digitally or physically present and, hence, there was an intentionality. The same goes for action, which appears in an abstract, intellectual, and cognitive manner, since the audience interprets the new information and relates it to their experiences and knowledge. Lastly, though not necessarily visible, they underwent a cognitive and emotional learning process. Therefore, the outcome/effect was also achieved, as the goal was to disseminate knowledge. Consequently, *White Papers on Dissent* took on an activist curatorial approach that strived to give agency to its audience by introducing and participating in counter-hegemonic orders supported by blockchain technology.

### **1.1.1. Curating The Digital**

Before turning to the second methodological approach, it is worth briefly addressing the fact that while the topic of this research, blockchain technology, is unquestionably digital. My approach roots it in our everyday, connecting it with activist and artistic practices to unveil its social potential. Likewise, the curatorial project that accompanies this PhD speaks a digital vernacular but brings the experience of constructing the world otherwise using digital means back to the physical. It embodies, accordingly, the post-digital condition, which defines the status-quo after mass computerisation, with its new networks of power, different forms of geopolitics, and new ways of marketisation. By analogy, then, we can conceive it in similar terms to that of postcolonialism, which, as Florian Cramer contends,

does not, in any way, mean an end of colonialism, but rather its mutation into new

power structures, less obvious but not less pervasive, which have a profound and lasting impact on languages and cultures, and most significantly continue to govern geopolitics and global production chains. (2014, p. 13)

Thus, to curate in post-digital terms means to navigate a situation that is not divided by a frontier between the digital and physical, where power structures are born digitally and expand physically to configure the ways we access our reality, establish our consumer habits, or form our subjectivity. Rather, in this fluid terrain, curatorial activism means to critically engage with monopolistic digital corporations and to open up new counter-hegemonic codes. The complexity of these curatorial projects, which entail technological expertise, transforms the role of artists and curators to procure new collaborative modes of production and presentation, as happened with New Media Art (Paul 2006, p. 6). The exhibition is now a platform that reflects on socio-cultural and economic developments, with the curator a “builder, filter, interpreter, context and service provider and node networked with others” (Ghidini 2019, p. 5).

In *White Papers on Dissent*, my curatorial voice was transformed and evolved thanks to work with artists, activists, technologists, and academics. The encounter with these agents, the participation in alternative education projects such as The School of Disobedience<sup>4</sup> in Berlin, the attendance to festivals such as Transmediale<sup>5</sup>, CTM<sup>6</sup> or Atonal<sup>7</sup> in Berlin, online projects such as DAOWO<sup>8</sup>, and the many Discord channels, newsletters and internet rabbit

---

<sup>4</sup> As it appears on the website of the project, “The School of Disobedience is an experimental format to test new ways of independent knowledge production in the 21st century. The inspiration is the spirit of Berlin, the city as an image for this time and this world, heterogeneous, international and politicized. The goal of the School of Disobedience is to concentrate this potential of the city and put it to use for working on a common future. Launched in fall 2018 and continuing into 2019, the School of Disobedience worked in the Grünen Salon with a set of events to test formats and content of the para-academic practice.

<sup>5</sup> Transmediale is a festival for media art and digital culture.” (School of Disobedience, n.d.)

<sup>6</sup> “The CTM Festival for Adventurous Music and Art celebrates experimental, contemporary and electronic music in special places of Berlin's nightlife” as it explains the About section on the website. (CTM, n.d.)

<sup>7</sup> “Berlin Atonal is an annual festival for sonic and visual art in two distinct stages. It first took place between 1982 and 1990, relaunching in 2013 under new direction and continuing to the present day. The festival presents contemporary, interdisciplinary projects at the intersection of sound art, visual and media art, installation and performance, with an emphasis on commissioned work and world premieres.” Explains the article in wikipedia (Atonal, n.d.)

<sup>8</sup> In the website of the project, it explains that “DAOWO is a transnational network of arts and blockchain cooperation with leading international arts and technology institutions and communities in cities around the world.” (DAOWO, n.d.)

holes, I was able to co-create a programme that sought to fill the gaps in this still nascent discourse. Through very different areas of expertise, the eminently digital context was brought back into the physical reality, contextualised, and analysed, giving agency to those participating. The programme intended to present interdependencies and new forms of access, creating new connections and shapes of knowledge. This methodological approach encompassed the nuance of the contemporary post-digital condition, and the determination of curatorial activism was thus able to revise the canon and offer new counter-hegemonic digital orders

### 1.1.2. Weak Theory

Instead of exploring the grand narratives of economic systems and their political and social connotations, *White Papers on Dissent* proposes a careful meandering through the fringes of economic discourse. To do so, it concentrates on looking for alternative vocabularies and artistic proposals to create a Weak Theory.

The inspiration for this approach comes from Eve Sedgwick, whose concept of Weak Theory (2003) does not focus on all-encompassing, already existing theoretical frameworks, but limits its reach and localises its purviews. The intention is not to create a theory to explain all symptoms, but to look for the deviant, the opening, the alternative, or the divergent and dissenting discourses. If Hard Theory has enforced the hegemonic systems of thinking and acting, in contrast, Weak Theory can de-exoticise power and investigate more pedestrian forms, whereby a differentiated landscape of force, constraint, energy, and freedom can open up (Allen 2003).

Also influenced by this notion, Gibson-Graham<sup>9</sup> (2006) aimed at liberating alternative languages from discursive subordination. Likewise, this curatorial project was written in a counter-hegemonic language in order to navigate how new forms of social organisation can orient their meaning to non-capitalist points of identification. The selection of participants in

---

<sup>9</sup> Economic Geographers J.K. Gibson-Graham's notion of Diverse Economic Systems is a fundamental theory to understand this research as a whole. This will be further elaborated on in Part I.

*White Papers on Dissent* aspired to collect an alternative set of voices whose work is shaping deviant discourse in relation to capitalism: moving away from hyperfinancialisation.

Weak Theory also implies that one acts like a beginner and refuses to know too much; that is, to act innocently enough to be able to see through the dominant stances, as Rancière proposes in the *Ignorant Schoolmaster* (1991). With this Socratic approach, *White Papers on Dissent* wants to build knowledge collectively, welcoming different points of view and levels of expertise. The panel discussions provide in-depth perspectives on different topics, while the workshops and performances generate embodied knowledges enacting the practice of blockchain. In this framework, these artistic practices are especially well-equipped to provide the experience of re-formulating social relations and re-addressing power structures. This is, as Haiven clarifies, “not, as is often assumed, because it retains some critical distance or autonomy from it, but rather because it is so deeply and profoundly integrated into global financial flows and their social and cultural channels” (2018, p. 531). These artistic practices were able to move beyond a celebratory semi-autonomy from capital markets and were thus able to investigate the limits, alternatives, and weak points (Haiven 2018, p. 539).

## **1.2. Action Research**

Turning now to the second methodological approach employed, action research, I would like to probe the topicality of the curatorial approach and to explicate the methods. In the following I will therefore dissect the methodology in an art-technical context, and will explain how it was implemented in the development of the research. Beginning with the centrality of the audience and communities of practice, I will then look in detail at the structure of the research.

Action research combines theory and action to produce informed, improved behaviour and to encourage social change (Oja & Smulyan 1989). Accordingly, *White Papers on Dissent* happened holistically in naturally occurring settings (the art institution) without clear limits or controls in its experiment setting (Perry & Zuber-Skerritt 1994; Trist 1976). In doing so, it moves away from the dominant western tradition; that is, it undertakes a non-positivist inquiry, which acknowledges the inevitable interdependence of humans and their

environment (Zuber-Skerritt & Wood 2019, p. 9), which, in this case, prioritises the digital realm. This perspective is especially appropriate because of the influence of the work of Gibson-Graham, themselves advocates of action research, who propose an investigation about community economies through the study of interdependencies (2006, p. 58). As a result, this curated project brought about a holistic, non-positivist, enacted research project on social experimentations using blockchain technology.

When employing action research methodology, both the centrality of the audience and communities of practice are key and it will be explained later in the chapter. Action research is therefore a methodology that requires we position participants at the investigation's centre. By means of the curated programme, this research is able to embody the five outlooks on action research described by Otrun Zuber-Skerritt and Lesley Wood (2019), which pivot around the idea of participation. First, it creates practical knowledge through workshops and performances, leading to "practical immediate improvements during and after the research process" (p. 5). Subsequently, the second point relates to its participative and collaborative nature, as this research is *with* and *for* people, since it is developed with a network of likeminded agents in the blockchain ecosystem and the audience of Van Abbemuseum. Concomitantly, the third point is related to the lack of hierarchies, because all participants in the project act as equal participants, including the curator convening the experience. Fourth, it provides an interpretive theory, which not only assumes the statements of a positivist research based on the curatorial output, but also in the "solutions based on the views and interpretations for the people involved" (p. 5). These opinions and experiences are implemented both in the podcast and in this analysis. In acknowledging the audience participation and the influence of different agents, I intend to reinforce the idea of Weak Theory, which creates knowledge in a collective manner and is capable to go against and see through hegemonic systems. Lastly, like action research, *White Papers on Dissent* is critical because a community are introduced and confronted with different points of view and working examples, providing hands-on and immersive experiences that help build up their own critical perspective. This research project is also affected by their critical experience, since feedback and opinions are embedded in the final outcome: the podcast and conclusion.



Due to the still-nascent nature of social practices using decentralised blockchain technology, examples are very limited and it is not yet widely researched. This poses what Zuber-Skerritt and Wood describe as a Wicked Problem; that is, these are problems that are “difficult or impossible to solve because what’s needed to address them is contradictory, incomplete or changing in ways that are difficult to identify” (2019, p. 9). Hence, they need more openness. Due to the still unstable context, this methodology allows us “to suggest and make positive changes to the environment, context and conditions in which that practice takes place, to achieve and sustain desirable improvement and effective development” (Zuber-Skerritt & Wood 2019, p. 5). The curatorial project can, hence, spawn changes that positively affect the development of blockchains at large, as well as providing a useful blueprint for artists and designers working with this technology.

Turning to the second key aspect of action research mentioned above, the methodological approach is influenced by Communities of Practice (CoP), a theory developed by Etienne Wenger in *Situated Learning* (1991). It positions communities as “the primary loci of learning, which is seen as a collective, relational, and social process” (Omidvar & Kislow 2014, p. 266). Given the high entry point to the technology, the complexity of its workings, and its social and emancipatory goal, this theory was pivotal in the development of the curated programme. *White Papers on Dissent* was thus conceived as a space for knowledge production and dissemination, crystallised as panel discussions, workshops, and participatory performances.

Learning is a process of identity formation; that is, becoming a different person rather than being primarily about the acquisition of knowledge products (Fuller 2007; Murillo 2011; Omidvar & Kislov 2014). This perspective can be found in the podcast, which pays special attention to the responses of the audience. Concretely, *White Papers on Dissent* focused on Epistemic/Creative Communities of Practice (Amin & Roberts 2008). Therefore, the curatorial project was shaped as a short-term programme, with different type of events, in which a specialised audience could “come together with the purpose of experimenting with new knowledge in order to unleash creative energy” (Kaethler 2019, p. 5). The discursive programme became, as a result, an educational outlet for the social uses of blockchain, while

also becoming a tool to enhance knowledge about this technology. This recursive process puts the participants at the core of the research with the hope of making positive change in this still nascent technology.

Finally, it is worthwhile to outline the structure of the action research employed in this project. Action research encapsulates a philosophy, methodology, theory, and process of learning and development. It aims at practical and emancipatory outcomes and seeks to produce relevant and authentic theory that has real meaning for those involved (Wood & Zuber-Skerritt 2013; Wood 2013; Zuber-Skerritt 2011; Zuber-Skerritt & Wood 2019). To do so, it follows cycles of 1) planning, 2) acting, 3) evaluating, and 4) further action (Dickens & Watkins 1999, p. 134). *White Papers on Dissent* follows the same structure.

The first cycle entailed ***problem identification / planning***. Specifically, the first step in action research is dedicated to planning and “identifying a problem in [its] particular context” (Dickens & Watkins 1999, p. 132). In this case, this was the bibliographical review in the parts I, II and III.

Since the technology is still developing, its political readings are still in the making, and its practical uses are still in the process of incubation, this posed difficulties Zuber-Skerritt and Wood (2019, p. 9) describe as a Wicked Problem. Hence, the second part, ***Acting***, focused on the curating and producing of the public programme at Van Abbemuseum. The curated programme provided a productive advantage, as it came to fill gaps in the theory and provided real examples of working projects.

*Panel Discussions* delved into four different aspects: commons, activism, alternative governance, and community building. The first explained the intersection between blockchain and commons-oriented economies. The second envisaged blockchain as a tool to voice dissent through its prefigurative capacity. The third investigated new types of blockchain-based governance that embody multi-dimensional values and motivations inherent to a community economy. Finally, the last panel aimed to expose the affective qualities of blockchains and its potential affects in the world(s)-making strategies of technologically mediated communities. These events came to follow the strategic plan

developed in the first three parts, while providing unique access to people and projects that are currently shaping the discourse around the technology.

*Participatory Events* embodied the learning theory of CoP. They were conceived as collective learning experiences that emphasise collaboration between peers, participation in a shared activity, and the development of a common repertoire (Cox 2005; Wenger 1998). They used speculative design and design thinking as techniques to develop LARPs (Live Action Role Playing), which intended to disseminate a broad spectrum of knowledge and can act as a locus for creative and innovative problem-solving (Cook & Yanow 1993; Lindkvist 2005; Mørk et al. 2012). Ultimately, the workshops were dedicated to putting in motion a joint exercise of meaning-making negotiation that is tacitly interlocked with the process of identity formation, which is reciprocally connected to the act of engagement and reification. For Wenger, this participation has a double meaning; that is, “a process of taking part and also to the relations with others that reflect this process” (1998, p. 63). Consequently, focusing on CoP not only highlights the interplay between individuals and collectives but also enhances learning across the organisation (Omidvar & Kislov 2014, p. 273). The workshops were dedicated to collectively re-designing how a community deals with issues like finance, government, and intra-community relations when non-market values organise social life. Using workshops as a model to facilitate interaction provided a productive source to observe two parallel events taking place in the process of identity building. One regarded how participants negotiate their identity<sup>10</sup> in the community of practice; that is, “how you express your competence in that community, how others recognise you as a member or not” (Farnsworth, Kleanthous, & Wenger-Trayner 2016, p. 145). The other relates to the process that happens afterwards, how this participation shapes one’s identity: “How do you inherit some of the identity characteristics that reflect the location of your practice in the broader social landscape?” (Farnsworth, Kleanthous, & Wenger-Trayner 2016, p. 145).

---

<sup>10</sup> This became specially pronounced in the workshop organised by Aiwen Yin called “Liquid Dependencies” at Van Abbemuseum. The game consisted in a role play where each participant was building their identity within a community organised instead on long-term care relationships instead of money. This will be further explained in Part IV

The third stage entailed ***Evaluation***. This “refers to thinking back critically, not just about the results of the evaluation but about the whole action, research process and outcomes” (Wood & Zuber-Skerritt 2019, p. 5). The analysis provides detailed examination of the previous steps and intends to reveal that the research has clearly and thoroughly pursued worthwhile purposes. “What is deemed to be ‘worthwhile’ is something that needs to be explored with those who are affected by the situation” (Coghlan 2019, p. 86). Hence, the entire curated programme was evaluated by its participants. After the workshops took place, there was a series of questions for the participants, whose experiences were recorded for the podcast. This permitted me to evaluate their perspective and pay attention to the different ways of involvement in dialogical and collaborative activities to build common understanding and consensual collaborative action (Coghlan 2017).

Unavoidably, then, this is a values-driven and ethical investigation, which intends to trigger social change by revealing and rehearsing new forms of collectivity, based on diverse economies driven by social rather than material values. Therefore, the analysis attends to each situation’s uniqueness (Coghlan 2019, p. 86) and it explains the ways in which the plan changed to suit the particularities of the environment and the characteristics of the participants.

Once evaluated, it is feed-backed to the research, in this case, taking the shape of a podcast, which conveys the after-thoughts and the experiences of the participants. The last part of the research, ***Take Action***, concentrated in the production of an audio-exhibition. The podcast is also a way to experiment with the curatorial medium and rehearse new ways of building an exhibition beyond the classic physical boundaries. The goal is to encapsulate the whole programming and to explore a different form of engagement with the audience. Arranged thematically, the podcast delves into how this decentralised technology can change the concept of value and its potential articulating new social constructions. The podcast puts in perspective the whole programme, and goes a step forward using the learnings stemming from analysis section to commission a new audio piece by artist and game designer Shawn Chua, who proposes a LARP exercise to reframe the understanding of value using blockchain as a sandbox for institution making.

### 1.3. Overview of White Papers on Dissent

With this methodological approach, *White Papers on Dissent* provides an analysis through two complementary angles: the politics within the technology and its aesthetic experimentations. On the one hand, I explore how the different uses of blockchain technology can support new socio-technological imaginaries based on community and commons-oriented economies. On the other hand, I explore how artists working with blockchains give rise to new forms of aesthetic resistance as they are exercises that recreate, in the present, a desired unwritten future. They turn thus into pre-enactments of a multiverse of agonistic proposals that challenge our perception of value. In four parts, *White Papers on Dissent* unfolds these concepts explaining the technology beyond blockchains' technical characteristics, rooting its artistic practices within the lineage of Institutional Critique and social practice. This perspective requires deep-seated reflection on technological potential in times of crisis, and the role of art in overcoming it.

Part I focuses on the technology, considering how blockchain can support diverse economic systems grounded in non-market, fluid, and responsive value systems. To do so, it firstly examines how peer-to-peer (P2P) coordinating systems embody alternative value networks that escape the logic of capitalism. Then, it delves into the specifics of blockchain, in particular, its most radical feature: trustlessness. This characteristic is a synthetic form of manufacturing trust between peers, which can enable a structural transformation in social coordination. This context entails a value process but, to properly assess it, I first examine the digital as a place and, thus, a locus of possibility that represents the material manifestations of a certain subjectivity. This world-building experience permits us to challenge normative views and allows us to think otherwise by using the technology to question two concepts: supply and demand, and property.

Part I continues by exploring governance in commons-oriented communities, and asks how, through the process of tokenisation, we could make visible diverse values such as care or social innovation. Before explaining how these processes hold political agency, I will consider blockchain regulatory framework nuisances; in particular, the collateral effects of ex-ante instead of ex-post control. Then, the argumentation moves towards the politics within

the technology, as a way to properly explain how it has come to be a platform for the social constructions of autonomy. Accordingly, it proposes two reciprocal perspectives: a micro and a macro.

First, the micro angle unfolds how the technology can overcome neutrality to facilitate, in Jacques Rancière's (2004) terms, a redistribution of the sensible. Second, the macro perspective considers the potential role of blockchain coordination in communities stemming from social movements. This particular position has productive advantages in relation to blockchain-enabled governance, since they use analogous organising methods and a similar social composition to that described by New Social Movement Theory. As a result, Part I provides a comprehensive approach to the technology through an analysis of its social potential.

Part II moves towards digital art and is dedicated to explaining the potential of a Social Blockchain Practice Art, situating it within art history. To do so, it starts by juxtaposing New Media Art with Institutional Critique. Although usually not connected, New Media Art conveys a double movement where the two waves of Institutional Critique overlap. One inwards gesture addresses the particularities of the medium from within; another outwards gesture tries to procure a change outside the realm of action, which addresses the power structures at large. They provide new forms of interaction that exceed the museological rationale and question classic models of display, mediation, and reproduction, along with encouraging expanded versions of spectatorship, production, and collaboration.

The analysis then follows a different perspective, exploring digital art as a social practice. To follow this line of thought, I dissect the project *HyperReadings*, a digitally distributed archival infrastructure for writing, sharing, navigating, and adapting reading lists. Through this example, I explain how digital social practices respond to the struggles of neoliberalism by creating structures that foster digital commons and empower the audience in the process of co-creation. Specifically, they can bypass the art system in two ways: by moving flawlessly between the digital and physical realms and by surpassing its system of valorisation and commodification.

The final section of Part II is devoted to specific projects that work with blockchains, the abovementioned Social Blockchain Practice Art. By analogy with social practice, these practices foster community engagement to trigger social change; in this case, using blockchain as a medium of distribution. Accordingly, these practices enact, through direct action, the power of creativity to shape new living environments that give rise to the utopias of today.

The goal is to further root these practices within art history. Therefore, it considers two aspects: formal experimentation as a continuation of the avant-garde's legacy, together with the collective experience described as a Social Sculpture by Joseph Beuys. Correspondingly, the second part of this book intends to position blockchain social practice in art historical terms, as a continuation of the ideas behind Institutional Critique, as well as a new format of Social Practice Art, linked to Beuys's notion of Social Sculpture and connected to the formal experimentation of the avant-garde.

Part III explores the social imaginaries embedded in blockchain and examines how these are reflected in its art forms, giving rise to a pre-enactment of a multiverse of agonistic proposals. At the core of this study, one finds the notion of time or, concretely, the dislocation of time and its political potential. To further test this topic, I explore the relevance of imagination in the formation and development of projects using blockchain. I consider three interconnected concepts: radical imagination, utopia, and prefiguration. As Haiven and Khasnabish explain "Radical imagination claims to be radical because it is a reaction to deeply rooted tensions, contradictions, power imbalances, and forms of oppression and exploitation" (Haiven and Khasnabish 2014, p.3), but most importantly, because it intends to trigger change in the beliefs that ground the system itself. This framing leads to utopia: specifically, to Miguel Abensour's understanding of utopia as a simulacrum. It does so by using *lex cryptographica* to create a space of alterity which proposes, in the present, alternative social imaginaries.

The third interconnected concept, prefiguration, in turn, thinks like utopia but emphasises direct implementation. In particular, I reflect on the implications of this for artistic practices, which translates into developing free spaces for social change. Lastly, I

connect these three concepts to social blockchain art. These artistic practices are often set in a fictitious near future and prefiguratively embody the post-capitalist future as a response to our present heideggerian anxious hope. Furthermore, they enact the workings of *lex cryptographica* as a simulacrum and, as Abensour (2017) proposed, they stimulate action in the present, connecting it with the realm of affectivity. By proposing new social life re-arrangements in an unrealised post-capitalist future, they can pre-enact pluralistic Agonism and, thus, give a glimpse of a world post-crisis.

The fourth and final part examines two curated projects, in which I put into practice my previous research on the social potential of blockchain technology and the role of artists in shaping this process. The first explored the influence of digital activism in the subsequent artistic practices. It took place in Gwangju, South Korea, at the Asian Cultural Centre (ACC). The history of this country served as a basis from which to explore how the radical uses of new media transform social coordination at a moment of upheaval, and how, collaterally, they remodel the ways artists develop their work. In particular, I paid attention to prefiguration by analysing how it was transferred from digital activists to artists, and how it, reciprocally, transformed their work into forms of dissent.

Built upon the previous project, the second, which took place at Van Abbemuseum in Eindhoven, concentrated on blockchain. This project, too, provided different angles, developing the knowledge gathered in Parts I to III. Specifically, this curatorial project provided three new perspectives: the world-building capacity of blockchain, the way it can convey economy with agency, and how it simulates new value forms. These ideas were critically reviewed through talks and participatory events that presented a clearer picture of the current state of affairs. Namely, it is a still-incipient ecosystem surrounded by many threats but also with manifold possibilities. Through participatory performances and workshops, *White Papers on Dissent* also considered, in artistic research, how artists working with blockchains create moments of collective awareness of hegemonic forms of social coordination. Their projects enacted a dislocated temporality, the heir of prefiguration, which enabled them to convey a multiverse of possibilities performing alternative value systems.



With these four parts, I intend to explain how blockchain technology can create new social imaginaries. The creativity adapting and reconfiguring blockchain affordances enables new forms of utopia with a biopolitical production adjusted to the characteristics and desires of the post-digital society. The artistic experiments are analysed as representations of futures that have not yet been co-opted by technological monopolies, which help envision and push the boundaries of new emancipatory strategies. As opposed to other blockchain artistic products, like NFTs, Social Blockchain Practice Art provides speculative moments of world-making, empowering multilocal and multidisciplinary communities and generating new systems of cooperation. The political agency of Social Blockchain Practice Art resides in its capacity to envision and put into practice new imaginaries that bring about counter-hegemonic orders. As a result, these art forms are capable of pre-enacting pluralistic agonism, linking the present with an unwritten future, and, in turn, writing a future through the practice of today.

## Part I: Blockchain as a Social Tool

*Capital aggregates into great masses in one hand because, elsewhere,  
it is taken out of many hands.*

Marx (1930, p. 691)

In France, when the new labour law was released in 2016, a journalist noted that there was a clash of two minorities: a governmental minority and a minority of demonstrators in front of a population of spectators. Between 2015 and 2019, Spain had four presidential elections. In the United States, the 2020 Democratic Primaries started with twenty-nine candidates. Brexit lasted three years and had three different prime ministers, and the after shakes tumble the last one ,Boris Johnson. During the same timeframe, Apple reported a record revenue of 91.8 billion USD in 2019<sup>11</sup> and Amazon grew its business 40%<sup>12</sup> whilst Facebook owns the four most downloaded apps of the last ten years.<sup>13</sup> “What makes our situation so ominous, is the all pervasive sense of blockage. There is no clear way out, and the ruling elite is clearly losing its ability to rule” (Zizek 2012, p. 127). The start of the 2010s decade is tinted with political fragmentation on one side, and an overwhelming concentration of power in digital corporations on the other. As the population is endemically questioning the traditional functions of the Westphalian nation-state, such as sovereignty and authority (Atzori 2015, p. 14), it also consents, almost without reservation, to be reunited under the empire of the cloud. In light of this situation, Part I exposes how digital decentralisation, as a political tactic, avoids the prevalent forms of protological control (Galloway 2006) and facilitates an independent communicative and political space.

Political distrust inadvertently prompted the conditions that the monoliths of Silicon Valley used to construct their own power infrastructure. Their algorithmic power transforms

---

<sup>11</sup> See <https://www.fool.com/investing/2020/02/02/3-reasons-apple-stock-is-hitting-new-highs.aspx>

<sup>12</sup> See <https://www.forbes.com/sites/angelaueung/2020/02/04/jeff-bezos-sold-1-billion-worth-of-amazon-shares-in-two-days/>

<sup>13</sup> See <https://www.bbc.com/news/technology-50838013>

not only the manner in which we access information, but it moulds the form of our socio-technical systems (Galloway 2006). As the collective The Invisible Committee assert, “the great builders of infrastructure have the means for which the fascists only have the folkloric discourse” (2017, p. 17). This New(er) Regime of control has surpassed Lenin’s notion of the state as an apparatus of coercion (1917, p. 42), because these digital transnational corporations exert a type of oppression that is ubiquitous and exhaustive: it defines the way we access the world and relate to each other.

In this situation, reminiscent of Plato’s cave allegory, the end user has become addicted and manipulated, constantly tweeting, posting, and checking their smart devices in a sort of neurosis à la Frantz Fanon, which makes us languish, unable to trigger a political reform that overpowers political fragmentation. Moreover, the encroachment of private and public actors and the symptomatic increase of surveillance is far from disappearing. On the contrary, algorithmic power is more pervasive and affects all mechanisms of communication. As early as 1948, legal philosopher Zechariah Chafee explained that the media was pivotal in forming political and cultural consciousness, and their role in influencing democratic processes is undisputed.

In this context, according to media theorist Yonkai Benkler, it is necessary “to design a system that will disrupt forms of power—old and new—as they emerge, and that will provide a range of degrees of freedom” (2006, p. 20). Hence, in this moment of political fragmentation and increased digital control, this chapter starts with a question: If our social and political systems could be redesigned, “what types of social, cultural, aesthetic, and ecological values that are not accounted for in the current financial economic structures” (Lotti 2018, p. 97) should be put to the fore? This question triggers an investigation that delves into the emancipatory potential of blockchain, as this technology has the capacity to facilitate new forms of social production, where a community is organised based on non-capitalocentric values. Therefore, it moves away from the prevailing discourse around the criminal uses of Bitcoin to provide an in-depth explanation of the social potential of the underlying technology.

Accordingly, its radical capacities are examined through two complementary angles: the economic and political repercussions of the technology. In the first part, this chapter explores how blockchain technology can support diverse economic systems grounded on non-market, fluid, and responsive systems of values. More specifically, in the first section I question how to rethink value to then consider how P2P system reproduce them, and, hence, pave the way down to scrutinise how blockchain can represent different value systems. In the second half I turn to the political perspective to respond to my initial research question: how can we enact dissent today? In this section, I consider how blockchain structures become political tools that could support the New Social Movements. In this way, I propose blockchains as apparatus for social constructions of autonomy and a structure that can sustain alternative forms of collectivity based on post-digital society's diverse values.

### **1.1 How to Re-think Value**

To think about value otherwise implies acknowledging the extent of its entanglement with capitalist thought. Value is expressed as a factor of exchange and, generally, its status is represented by money. Our perception of commodity exchange is a complex puzzle, whereby property sits at the core of capitalist thought, and with it, concepts like scarcity (Ricardo 1821), natural order (Smith 1776/1999), command of possession (Mill 1848), and labour as the source of wealth accumulation (Marx 1867/1978).

Despite this complexity, the idea of value often starts with a basic assertion: value equals money. When people engage in a financial transaction, the goal, Marx (1867/1978) observes, is money. It is the ultimate embodiment of value. To complete that equation, the value of commodities is related to the amount of human labour that it took to produce them (Marx 1867/1978). Hence, value equals money that equals labour. Ricardo (1821) specifies that value can be calculated proportionally to the “man-hours” invested in the making. Employers buy those hours not specially to do that work, they buy the *capacity* to do something during a particular period of time. This points towards a question: When labour cannot be accounted for in purchasable hours of work, how is its correlative value

proportionally measured? This leads in turn to another question: What could be considered valuable if we move away from these market-related concepts?

### **1.1.1 Queering The Economic Language.**

Reconsidering value beyond capital relations is a complex matter with many possible answers. To ground my investigation, I focus on the work of economic geographers Gibson-Graham (1996, 2006) on diverse economic systems, continuing their investigation into the potential of reframing the notion of value. To define diverse values, Gibson-Graham's analysis acknowledges three interrelated processes: 1) the different ways of negotiating incommensurability; 2) the different types of labour and ways of compensating it; and 3) the alternative forms of economic enterprises and ways of producing, appropriating, and distributing surplus. These procedures become an invitation to reconsider values, as anthropologist David Graeber remarks, in a "plural sense" (2001, p. 55); for example, the aesthetic value of art, or family or religious values. However, as Graeber also notes, "where there is no single system of value, one is left with a whole series of heterogeneous, disparate ones" (2001, p. 55). This translates into the current sense of an implicit hierarchy. Value is conceived in relation to others, which means they resolve towards an imagined audience: capitalist values are higher because they are countable, whereas non-capitalist values are lower in the ranking since they are incalculable. This process is discursive and, therefore, it holds the potential to reconfigure the economy alternatively.

Subverting capitalist dominance over the language of value calls for a new lexicon of economic diversity that could perform different economies. Gibson-Graham propose that we "re-politicise the economy by challenging the representation of capitals as the necessarily and naturally dominant form (or identity) of economy" (2006, p. 54). To reframe value beyond the market thus indicates a shift from the distinctive capitalocentric social imaginary composed by individual wealth, freedom, calculative rationality, competitive individualism, unburdened consumption, and well-being trickled down to all (Gibson-Graham 2006). This change alters the understanding of value in capitalist terms and opens up a multiform and plural conceptualisation of value derived from the abovementioned three axes of diverse

economic systems: different types of labour, commensurability, and surplus negotiation. Gibson-Graham insist that we “approach economic relationships as something to be contingently rather than deterministically configured”, and that “economic value” then becomes “liberally distributed rather than sequestered in certain actives and denied to others, and economic dynamic as proliferating rather than reductive to a set of governing laws and mechanical logics” (2006, p. 60). The exercise of liberation from a capitalocentric vernacular becomes a performative act.

Furthermore, having diverse economic languages involves queering the economy in order to surpass binary ideals, as philosopher Judith Butler (1993) did with heterosexuality and binary gender categories. Language, as Butler argues, has the power to create the effects that it names (1993, p. 2). That performativity can also be expanded into materials, when following Actor-Network Theory, which then leads to considering “economic practices and regimes as assemblages of ideas, human actors, and more-than-human matters” (Healy 2019, p. 103). As a result, these new and rich economic languages destabilise and dislocate the seemingly identification between the economy and the rules of capitalism, which prompts counter-hegemonic discursive projects of subversion, inspired by the political project of political theorists Ernesto Laclau and Chantal Mouffe (1985).

These new counter-hegemonic languages of a diverse economy can be put to work in very different scenarios, which result in diverse formulations of value that share a social dimension. Through them, it is possible to explore the multidimensional nature of economic existence. By overcoming class politics, this language abandons the limiting and limited subject positions of consumer, worker, self-employed, unemployed, capitalist entrepreneur, and investor. Identity is, hence, considered beyond the surplus appropriation structures of

Louis Althusser,<sup>14</sup> and moves away from the struggles of capitalism, as per the regimens of value of Arjun Appadurai.<sup>15</sup>

Devoid of these connotations, a new non-capitalist existence arises. This state of becoming is engendered, as Butler maintains, because power is assumed by the subject, and the same acceptance is what becomes the instrument for that subject's becoming (1997, p. 11). This process of being and becoming is always active. Power is in continuous repetition, ritualised in practices that need to be broken. This is, intrinsically, the intention of Gibson-Graham, who state that

our objective has been to dis-order the capitalist economic langue, to queer it and thereby dislocate capitalocentrism's hegemony. In this space thus produced, we see opportunities for new economic becomings—sites where ethical decisions can be made, power can be negotiated and transformations forged. (2006, p. 77)

Hence, becoming is a space of possibility where the project of queering value becomes political.

### ***Making Visible Social Surplus.***

These diverse economic existences are, thus, not influenced by capitalocentric values, which are only produced in factories that create commodities destined to be exchanged in a commensurable manner (Marx 1867/1978). In contrast, values that are produced outside the workplace are meant to circulate instead of being traded (Fajans 1997), because they are related to social production instead (Graeber 2001, p. 79). Precisely, those non-market transactions are at the core of these community economies, and the commensurability is socially negotiated, highlighting the interdependencies between all subjects in economic

---

<sup>14</sup> According to Graeber, for “Althusser, everything turns on the appropriation of some kind of a material surplus. Any mode of production is based on the relation of two classes: one of primary producers, the other, which supports itself at least in part by appropriating some portion the product of the first. What makes MoPs different is how this extraction takes place: This is what makes the relation between master and slave different from that between feudal lord and manorial serf, or that between capitalist employer and proletarian laborer” (2001, p. 85).

<sup>15</sup> Graeber explains that “Appadurai’s “politics of value” largely comes down to the story of how various elites try to control and limit exchange and consumption, while others (almost always popular forces) try to expand it, and the social struggles that result. “Regimes of value,” in turn, are the outcome of such struggles: the degree to which these elites have succeeded in channelling the free flow of exchange, or, alternately, to which existing cultural standards limit the possibilities of what can be exchanged for what.” (Graeber 2001,p.31)

decision-making (Roelvink 2016 p. 226). The foci for organising their negotiations revolves around four ethical coordinates: necessity, surplus, consumption, and commons (Gibson-Graham 1996, p. XVIII). These community economies implicate a process of “recognising and revaluing a broader network of care-relationships that are central to all ecologies and economies” (Dombroski, Healy, & McKinnon 2019, p. 99). To perform them is, therefore, a counter-hegemonic discursive procedure that underlines the social aspects in the idea of value.

The language of community economy reconfigures value by making visible those interdependencies. As anthropologist Marilyn Strathern (1992) indicates, social relations acquire value through the process of being acknowledged by others. To rethink value in a non-capitalocentric fashion implies, accordingly, to position community at the core of the assessment. It is related to the social surplus, which is dedicated “to build[ing] and sustain[ing] the material and cultural infrastructure of the social order. It is thus the potential object of ethical decision and political contestation” (Gibson-Graham 2006, p. 91). Differently to surplus labour, whose appropriation or distribution always entails a class process, social surplus fosters the relationships that make a community. This is what Jean-Luc Nancy (1991) called *Being-in-Common* or the *Commonality of Being*.

Hence, reframing value beyond the market is correlated to the particular way that social surplus is used. The ethical dimension of that decision-making process is guided by a set of diverse, non-capitalist values, which drive and perform the various shapes of community economies. For example, whether it depletes, maintains, or grows the commons plays an enormous role in determining a collective action (Gibson-Graham 2006, p. 97). Differently from cartesian ethics,<sup>16</sup> which are embedded in modern capitalist concepts of economy (Colebrook 2005), these are plural systems of embodied ethical practices (Richardson-Ngwenya & Nightingale 2019). They are not abstract, disembodied, and universal ethical codes of conduct, norms, or virtues; rather, they are plural practices of ethics that respond to the particularities of each community economy. Accordingly, these ethical

---

<sup>16</sup> Capitalism, argues Claire Colebrook, is “based on competitiveness, quantification and the ruthless extension of individual reason” (2005, p. 11).



decisions come to inhabit, configure, and be performed by bodies (Gatens & Lloyd 1999), who compose the community. This translates into a community adoption of different sets of ideals based on distinct notions of responsibility, care, rights, and justice (Bauhardt 2014; Harcourt 2014).

Unequivocally, to rethink value is part of the project started by Gibson-Graham to compose a new language of economic diversity. Value needs to be liberated from the dominance of class relations of surplus appropriation and distribution to, then, be able to encompass a broader network of care relationships. These exchanges revolve around socially commensurable transactions that foster social reproduction. Political economist Massimo De Angelis explains that, “if we do not ground our critique of mainstream discourse on the problematisation of this law of value, then we will not be able to gain discursive, practice and political autonomy from the interests and value practices of capital” (2007, p. 151). Hence, the path towards emancipation from capitalocentric subjugation necessarily entails reconfiguring our relation to value.

Recomposing value as a non-capitalocentric notion is a comprehensive endeavour with profound repercussions on social coordination. If value becomes fluid, responsive, and a diverse non-capitalocentric practice<sup>17</sup>, social life would aim at fostering the being-in-common. Hence, these systems of cooperation emphasise the ethical dimension of the decision-making process on the use of social surplus. Because commons-oriented communities are supported by P2P collaboration systems, which are translocal cooperation mechanisms, I will now focus on exploring the power of decentralisation and its relation to value creation in P2P communities.

## **1.2 Decentralisation & P2P Value Creation**

Decentralisation has been described by Ben Waters as “power, control, access, or ownership, as they are spread across multiple actors, points, or nodes comprising a network. It is

---

<sup>17</sup> For now on, when I refer to this type of values as Diverse Values by analogy to diverse economic systems proposed by J.K. Gibson Graham

reflected and manifested in various architectures, collectives, and frameworks” (2018, para. 2.). Benkler clarifies that decentralised systems have the capacity to provide self-determination over the communicative environment (2002, p. 292). The users are no longer passive, but active agents within the network, selecting from the different sources as well as securing a censorship-free setting. A decentralised communicative environment, consequently, cannot be co-opted because all parts have stakes in its protection. Thus, collective action also procures a secure system for the group as a whole. This agency within the system bestows all agents with enhanced criticality, as they are contributing to the development of an analytical worldview and culture. Similarly, if we think in digital terms, decentralised protocols also act in opposition to restricting outlooks and constrictive relations supported by centralised infrastructures.

Decentralisation becomes, therefore, a political gesture that responds to the growing mistrust in government and the accumulation of power in digital terms. It goes against the existing dynamics that tend towards a greater centralisation and the stabilisation of power (Benkler 2016, p. 20). Decentralisation promotes personal autonomy and collective self-governance, which implies regaining agency over the system and the possibility to envision alternative futures. As criticality is enhanced in decentralised systems, the desire of autonomy rises. This triggers new ways of self-organisation that carry world-views, prospects, and attitudes that are introduced through a newfound sense of self-determination. Decentralisation provides alternative forms of coordination along with promoting values according to the ethics of each community. Hence, this organising method could recompose social structures based on alternative, non-capitalocentric values.

In the digital realm, decentralised infrastructures operate as P2P collaborative systems. These are digital communities of likeminded individuals who, freely and willingly, collectively work towards the same goal following their particular value systems. “Any human being can contribute to the creation and maintenance of a share resource while benefiting from it” (Bauwens, Kostakis, & Pazaitis 2019, p. 1). These communities are articulated through specific shared values, where P2P acts as a relational dynamic of human interaction, and where all parts have the potential to act as equals based on trust (Bauwens &

Pantazis 2018, p. 303). As media theorists and commons experts Michel Bauwens and Alekos Pantazis explain, this feature unavoidably conveys a non-hierarchical network where “peers are interconnected nodes holding interchangeable roles” (2018, p. 303).

P2P and Commons-based Peer Production (CBPP) are similar concepts but the difference lies in the use of surplus value. This renders two different models: an extractive and a generative one. The extractive impoverishes or depletes the source, whereas the generative enriches, expands, and reproduces it (Bauwens, Kostakis, & Pazaitis 2019, p. 35). For example, Airbnb utilises P2P collaboration and information sharing towards profit maximisation, as opposed to Wikipedia, which works towards creating and disseminating knowledge commons. Consequently, extractive models harness social creativity and replicate a form of surplus value extraction (Bauwens & Pantazis 2018, p. 303). In contrast, the generative version enables a system of co-creation of non-rivalrous use-value, in the form of digital commons. As a result, this type of P2P cooperation becomes a method for innovation (Lakhani 2016, p. 110).

To continue rethinking the notion of value, this research will consider exclusively generative models of P2P, since they are articulated around non-capitalocentric values. These communities create and share resources which can be used by the community as a whole, as a commons, working in parallel to the accumulation of capital. As a consequence, this “cycle of open input” (Bauwens, Kostakis, & Pazaitis 2019, p. 11) defies protological power, precisely because it prompts its own systems of knowledge and value production as commons. The users are, according to Benkler, “more engaged participants, both in defining the terms of their productive activity and in defining what they consume and how they consume it” (2006, p. 138). This dynamic generates alternative forms of social production with flat hierarchies and the collective management of assets, shaped by the enhanced criticality and autonomy endowed by a decentralised communicative environment.

### **1.2.1 Value Types in P2P Systems**

By its very nature, CBPP produces transactional and transcendental values. The former can be translated into monetary terms, whereas the latter are immanent to the generative form of P2P, meaning that they are functional ideals and diverse values. The former are technical

affordances that can be quantified by looking at the overall utility that can be extracted from CBPP by society as a whole (von Hippel 2005). Economist and commons researcher Elinor Ostrom (1990) clarifies that the latter provide social capital to the user, since these values are related to how the social surplus is used in the community. Transcendental values, as opposed to market-translatable principles, cannot be converted into economic assets, as they are not quantifiable. They are non-capitalocentric values and, thus, refer to ethical ideals. Primavera de Filippi, an expert in commons and blockchain, explains that this value type is “related to a normatively structured worldview, whose fulfilment depends on people’s ability to live well according to the horizons of the community at stake” (2015, p. 472). Therefore, they are a representation of the underlying values of a community, both “abstract values such as freedom or autonomy, cooperation and sharing” (de Filippi 2015, p. 472), and more personal ones, like political satisfaction, personal enhancement, or enjoyment.

Those non-market values are intrinsic to P2P cooperation systems and make those systems a form of emancipation from digital hegemonic power. This is, thus, a political attitude that stimulates structures with alternative social production. As geographer Paul Chatterton asserts, “the common is full of productive moments of resistance that create new vocabularies, solidarities, social and spatial practices and relations and repertoires of resistance” (2010, p. 626). Generative P2P communities foster new forms of dissent that subvert centralised control systems by following diverse, non-capitalocentric values.

Political theorist Candice Delmas affirms that “resistance can disengage a broad range of dissent activities, which all express an opposition and/or refusal to conform to a dominant system of values, norms, rules (including law), and practices” (2018, p. 16). To develop alternative infrastructures against the concentration of power on digital corporations is, intrinsically, an act of dissent. It implies noncompliance with an ethos based on hyper-capitalisation and an avoidance of a distorted media-scape. Decentralisation does not only mean to be de-located, but that power and control is stretched out the multiple nodes that shape a network. Meta might give us the impression of being decentralised, as in spread out across the world, but power is centralised around his CEO. Hence, decentralisation comes to be a way of enacting resistance.

### **1.3 Value Systems in Blockchain Technologies**

Having established that decentralisation can function as a form of resistance, I will now turn to an examination of blockchain technology as a concrete proposal encapsulating the subversive aims of decentralisation. Blockchain holds the radical potential to coordinate ecosystems based on non-capitalocentric values by programming the kinds of social and economic relations enacted in a P2P manner that are dedicated to achieving shared social goals. The technology is understood as a hyper-political tool that can foster social surplus in a community, adapting its affordances to respond to the particular values and the community's interpretations. Through the analysis of its characteristics and problematics, the following analysis proposes an exploration of the social repercussions of blockchain through the lenses of two shifting notions: trust and value.

#### **1.3.1 Trustlessness: Algorithmic trust in times of crisis**

Blockchain is, literally, a public chain of sequential chunks of information linked one after the other with a hash that is irreversible and cryptographically encrypted, which produces an immutable ledger of transactions shared by all network nodes. The result is a tamper-proof “public record repository for documents, contracts, properties, and assets [...] which can be used to embed information and instructions, with a wide range of applications,” as Marcella Atzori, blockchain scholar, clarifies (2015, p. 2). Accordingly, this decentralised technology has the ability to facilitate an automated code-based transnational system that offers an alternative financial and contractual tool to organise social activity (De Filippi & Wright 2018). The technology is a permanent, distributed, digital ledger.

Although this decentralised technology is often associated with financialisation, its possibilities are manifold, since they “are mechanisms to coordinate and enforce rules governing behaviour” (Webach 2018, p. 12). It enables new forms of governance that are native to the affordances of the underlying technology, which include dis-intermediation and alternative frameworks beyond central authorities (Atzori 2015). Hence, it can be considered

a legal technology (Webach 2018) that can spark institutional innovation (Davidson, de Fillipi, & Potts 2018).

Nevertheless, the radical potential of blockchain relies on the rigid temporal matrix in which it operates. All past transactions in a blockchain are immutable because they are cryptographically recorded; furthermore, the future is programable through smart contracts. These temporal conditions have profound repercussions in community governance, which, in turn, have discernible effects on the notion of value. This is all thanks to the main feature of blockchain: trustlessness.

In 2008, just when the Great Recession shook the world, Satoshi Nakamoto released Bitcoin<sup>18</sup>. His white paper, *Bitcoin: A Peer-to-Peer Electronic Cash* (2008), proposed a mysterious “trustless” digital currency at the point when the trustworthiness of central governments was in question (a state from which Europe has not yet recovered<sup>19</sup>). Trust, as a social adhesive, is an intrinsically human notion and, yet, Nakamoto managed to reroute it through blockchain, generating a synthetic version that has the potential to articulate new forms of resistance. Therefore, this section considers how trust can be manufactured and the socio-political implications of this.

### ***Technical Characteristics of Trustlessness.***

Blockchain offers a method to algorithmically generate trust and, in turn, it endows its tokens (for example, Bitcoins) with value. “People are represented through arbitrary digital keys, which eliminate the contextual factor that humans use to evaluate trust-worthiness,” explains legal scholar Kevin Webach (2018, p. 29). On top of that, transactions are cryptographic proofs that are verifiable mathematically, and every single full node has a complete and accurate copy of all transactions on the blockchain. Consequently, there are no administrative nodes or hierarchical relationships (Matonis 2012) and, correspondingly, neither censorship nor interference is possible.

---

<sup>18</sup> Blockchain’s inception is, to me, a reaction to what I call Anxious Hope, which I further explain in Part III.

<sup>19</sup> Based on the Edelman Trust Barometer, <https://www.edelman.com/trust/2021-trust-barometer>

Most remarkably, however, Bitcoin was the first technology able to solve the Byzantine Generals Problem.<sup>20</sup> This means that it overcome the potential lack of reliability in a transaction and encompasses, for the first time, a Byzantine Fault Tolerance (BFT) algorithm. Thanks to this, all parties involved can find consensus and trust the ledger, even if some of the information might be inaccurate.

Nakamoto's solution is called Proof-of-Work, a consensus mechanism which validates the transactions on the Bitcoin's blockchain, and updates the public, non-modifiable database. To do so, a process called mining solves a difficult and time-consuming mathematical puzzle, called a hash,<sup>21</sup> which is the way a block is validated with a unique signature.<sup>22</sup> The reward for validating the next transaction (and therefore adding a block to the chain) is a token, which is a Bitcoin. The chance to win is related to the speed, and that is proportional to the computing power spent. As the competition increases between miners due to the scarcity of Bitcoin,<sup>23</sup> its environmental toll rises too,<sup>24</sup> because miners need enormous amounts of energy to process the puzzle.

By this means, Bitcoin and all blockchain infrastructures are able to manufacture trust effectively, because the algorithm creates a type of consensus that is unrelated to the trustworthiness of the agents or the message. Only the final ledger is reliable because of algorithmic validation, and its cycle of value-creation and -acquisition. Reciprocally, the

---

<sup>20</sup> This is a computer science problem, described for the first time in the 1980s. It recounts a situation where a group of participants have to find one single strategy that both reflects the desire of the majority and also circumvents failure. However, the only resource available is the messages provided, which either have faulty information, or they come from traitors. Besides, there is no central authority to help and, potentially, there are also actors that can disrupt the process (i.e., forking).

<sup>21</sup> A hash is the cryptographic byproduct of a hash algorithm: whichever miner first obtains the correct Bitcoin Hash will win the lottery and get the block reward of 12.5 BTC.

<sup>22</sup> The mathematics behind the hash algorithm ensures that there is no way to generate the original data from its generated hash. This means the hash only functions in a linear progression. A simple analogy would be that you can't produce a real human thumb from a thumbprint (Agrawal 2019).

<sup>23</sup> There are only 21 million coins; the amount was predetermined and embedded in the design of the algorithm.

<sup>24</sup> There are other consensus mechanisms that are more cost-efficient, for example Proof-of-Stake (POS). Instead of mining and its consequent use of processing power, POS is "based on game-theoretic incentives to promote compliant behaviour" (Webach 2018, p. 57). In this way, a node validates block transactions proportionally to the amount of the ownership stake. In other words, it can validate as many coins as it holds: if it has 6% of the digital currency, it could therefore "mine" 6% of the total coins.

network of peers (miners) agree that the token is a valuable reward that is worth the resolution of the mathematical puzzle.

In contrast, P2P coordination is sustained by traditional trust, based on relationships, flexibility to adjust to solve problems, and a shared ethical perspective on how to deal with the commons while supporting the community (Ostrom 1990). However, blockchain trustlessness presents productive advantages for a P2P community. Specifically, voluntary participation in the system is sustained through a distributed architecture where decision-making processes are coded on a protocol that is open source, immutable, and neutral. On it, all the data is owned by all the nodes, and all the transactions are auditable. In this way, “it can overcome frictions and failures inherent in [the] decision-making process of centralised organisations (e.g. lack of transparency, corruption, coercion, etc.)” (Atzori 2015, p. 7). More interestingly here, it offers a resilient structure that can mediate the workings of a translocal commons-oriented community.

### ***Blockchain Coordination Beyond Bitcoin: Smart Contracts & Decentralised Autonomous Organisations (DAOs)***

Bitcoin offers an alternative to FIAT money in times of crisis, but Ethereum, another blockchain-based structure, created a whole autonomous universe of tools with a much more nuanced form of agency and cooperation, which translated into an even greater capacity for self-organisation. Ethereum is a cryptocurrency platform that is a Turing-Complete Virtual Machine<sup>25</sup> and programming language that can create and publish distributed applications (Swan 2015).

Ethereum’s most radical feature is the smart contract: a self-enforcing agreement embedded in computer code managed by a blockchain. In it, a set of rules are defined and, when the conditions are met, the agreement is automatically enforced without discretion. In this way, they provide mechanisms for efficiently managing tokenised assets and access rights between two or more parties (Voshmgir 2019). Essentially, smart contracts are

---

<sup>25</sup> It means that it can run any coin, script, or cryptocurrency project.



autonomous, inasmuch as once they are running, they need no further communication. They can be self-sufficient, which means they can raise funds by providing services or issuing equity, and also spend funds on storage or processing power, if needed. Lastly, they are distributed<sup>26</sup> and self-executing across all the nodes of the network (Swan 2015).

Another Ethereum innovation is Decentralised Autonomous Organisations (DAOs). “As self-executing software running on a distributed blockchain, a DAO doesn’t need any owners in the traditional sense. It simply operates and interacts with the world accordingly to its code” (Webach 2018, p. 110). Constructed using smart contracts, it is able to perform tasks as if it were a corporation, but it can do so without the influence of any central government and is only controlled by shareholders (Chohan 2017; Johnston et al. 2014). A DAO implies a form of organisation holds a governance system, which provides decision-making capacities based on the pre-specified or pre-approved tasks in relation to certain events or changing conditions (Bontje 2014; Butarin 2013). It algorithmically processes the information from the environment<sup>27</sup> and, independently, takes a decision, where the participants only have indirect influence; namely, they can provide input but cannot control its behaviour (de Fillipi & Wright 2018). A DAO can replicate the effects, functions, and operations of a physical-world business model, yet can avoid the costs related to its local jurisdiction, such as licensing, registration, insurance, or taxes (Swan 2015, p. 24).

Furthermore, a DAO can sustain itself autonomously. This means that it can effectively behave like a corporation, collecting funds or distributing internal capital (in the form of tokens) to reward investors or participants (as in workers) for their contributions (Webach 2018, p. 149). Along with this, a DAO can expand over time to supply services or

---

<sup>26</sup> Swan explains that “Ethereum has its own distributed ecosystem, which is envisioned to include file serving, messaging, and reputation vouching. The first component is Swarm (‘Ethereum-Swarm,’ not to be confused with the crowdfunding site Swarm) as a decentralized file-serving method. A second component is Whisper (‘Ethereum-Whisper,’ also not to be confused with other similarly named projects), which is a peer-to-peer protocol for secret messaging and digital cryptography. A third component is a reputation system, a way to establish reputation and reduce risk between agents in trustless networks” (2015, p. 21).

<sup>27</sup> For example, it can collect external input with Oracles, which can be either a human or things like APIs and other external data feeds; a frequently mentioned example is the use of the BBC weather data feed for an insurance Smart Contract. (Brekke 2019, p. 109)

labour “in exchange for digital tokens that provide the token holder with specific privileges” (Webach 2018, p. 149). The owner of the tokens can, thus, use them to acquire goods or services provided by the DAO, or in the case of profits, to be accordingly compensated.

In summary, blockchain is a radical technological innovation that can promote alternative socio-economic structures, thanks to the provision of automated and trustless transactions. This technology could act as an agent of change whereby communities and individuals redesign its relations to finance, government, and society at large (Atzori 2015, p. 4), and implicitly re-address power relations (Rozas, Tenorio-Fornés, Díaz-Molina, & Hassan 2018). Owing to its decentralised and dis-intermediated governance system, blockchain overcomes centralised coercion and provides a system with horizontal hierarchies and distributed coordination mechanisms that endow individuals with higher stakes in terms of agency and self-determination. Hence, blockchain is able to coordinate epistemic crowds<sup>28</sup> that can embed their values and social goals into the code. As a result, it can create an independent system of governance providing algorithmic resistance. This way of re-understanding the technology as more than a financial tool sets the ground for my research searching for new forms of articulating dissent in the post-digital society. To do so, I now continue my argumentation by looking at the technology as a space that could sustain community economies and, thus, act as the apparatus of Transvestment.

### **1.3.2 Making Diverse Values Visible with Blockchain Technology**

The economic geographer Doreen Massey (1994, 2005) suggested that space is not a mere container for social relations; on the contrary, social relations are constitutive of space and place. Reciprocally, places are composed by their socio-economies and their relations to other places too. Massey argues that, “if space is indeed the product of interrelations, then it must be predicated upon the existence of plurality” (Massey 2005, p. 9). I argue that the digital space—specifically, blockchain—is, hence, an expansion of physical places, and can,

---

<sup>28</sup>In here, I refer to epistemic crowds to like-minded collectives that pool resources and collaborate creating networks of knowledge. I will talk more about this ill refer to epistemic crowds later on when I explain Meshworking systems Part 1, chapter 1.5.

likewise, be shaped by an ecology of actors that include digital, non-human, and human relations. If we follow Pamela Richardson-Ngwenya and Andrea Nightingale's suggestion that "places become the locus of possibility, the material manifestations of worldviews, knowledges, virtual and physical transactions, and the relational performance of subjectivities" (2019, p. 134), then digital space is a plural space and can represent the multiplicity of subjectivities of the on- and offline, translocal communities that inhabit it.

### ***Digital Places Representing Subjectivities***

The heterogeneity of the compositions of blockchain can facilitate hybrid spaces where community economies of any type can flourish. Within them, diverse non-capitalocentric values constructive of social surplus can be implemented at the level of code, constructing alternative spaces of resistance. Gender and sustainability scholar Wendy Harcourt (2014) highlighted that place-based politics are also related to re-appropriation, re-construction, and the re-invention of practices and possibilities. The blockchain ecosystem can, likewise, be appropriated, reconstructed, and reinvented to successfully support the experimentation to forge the political project embedded on the multiple compositions of community economies. Whether digital or not, "places act as prisms that refract global economic and governance structures, bending and shaping them in ways that make sense within the politics of particular sites and in different communities" (Mohanty & Miraglia 2012, pp. 122–123). Therefore, as will be further explained in Part III, blockchain can become a space that can give rise to counter-hegemonic systems adapted to the granular necessities of a community.

Furthermore, blockchain can therefore provide a space that bears the diverse understandings of value that overcome subjugation to capitalocentrism. Taking the work of sociologist Steve Woolgar and anthropologist Javier Lezaun (2013, pp. 323–324) on the ontological significance of science and technology, Adam Hayes (2019) reflects on the social potential of blockchain, noting that "it is not simply that social groups come to understand blockchains differently depending on their particular worldview; rather, various ways of practicing or enacting the assemblages stage multiple versions" (2019, p. 62). Each

configuration of a blockchain thus crystallises a particular reality and tentatively conveys its way to emancipation.

I would like to stress that blockchain's emancipatory potential is not associated with capitalism or anti-capitalism. It is its capacity to overcome both concepts thanks to its plasticity and its concomitant capacity to reproduce any subjectivity. As geographer and blockchain scholar Jaya Klara Brekke asserts, "if blockchain is only analysed through the lens of how and where [it] reproduces capitalism, it misses out on large part of the story, and also misses out on the potential of disruption" (2019, p. 36). The capacity to provide a structure that can be endlessly reconfigured provides a multiplicity of answers that move away and beyond the logic of capitalism. Diverse economic systems based on ethical decision-making process could find in blockchain a structure that can guarantee their sustainability, if they sidestep many threads along the way<sup>29</sup>. Hence, we observe a recursive movement: blockchain can transform the notion of value into a diverse practice and, at the same time, the diverse economic systems transform blockchain into a tool for social organising. By looking through this non-mainstream perspective to the technology, I could sustain this project as a Weak Theory that looks through hegemonic systems of value reproduction and creates its one.

Like Harcourt's politics of space (2014), then, blockchain is a digital place with political power, a structure and a practice that can be continuously re-appropriated, re-constructed, and re-invented. By doing so, like in diverse and community economies, blockchain configurations at the margins of economic discourses facilitate vibrant new understandings of economy, politics, and social relations. As Vitalik Buterin, co-creator of Ethereum, puts it, "blockchains are [...] Lego Mindstorms for building economic and social institutions" (Buterin 2015). Blockchain is a tool that can redistribute the given order and give rise, as Brekke asserts (2019), to new agencies, both human and non-human.

---

<sup>29</sup> These threats will be explained in Chapter 1.4. in this Part 1.

***Transvestment: Reconsidering ownership and supply and demand with blockchain.***

As a result, this decentralised technology holds the potential to challenge capital markets and commodity exchange, facilitating a P2P economic system (Allen, Berg, & Novak 2018; Bell 2017; Catalini & Gans 2019; Fairfield 2015, 2017; Ishmaev 2017; Jun 2018; Nair & Sutter 2018; Swan 2015; Tasca & Ulieru 2016). This can be achieved by questioning two concepts that are fundamentally associated with our current idea of value: the mechanism of supply and demand, and property. First, as a distributed ledger technology, blockchain can sustain a network of peers who cooperate on a voluntarily basis. This means that supply and demand does not have much influence on the output, which can be freely used and re-used by the community.

Second, the implicit liberal licensing schemes of CBPP provide enhanced creativity and innovation to the community. This fact substantiates Benkler's statement that, "instead of expansive copyright, we need robust defences for transformative, creative reuse of materials. Freedom to operate is more important than power to appropriate" (Benkler 2016, p. 196).

Third, blockchain stretches the idea of property, as the system is collectively owned and controlled, and can endow property rights "independently of any legal institutions" (Ishmaev 2017, p. 681). In *What Is Mine Is Yours: The Rise of Collaborative Consumption* (2010), Rachel Botsman and Roo Rogers explain ownership replacement for cooperative consumption as the key economic concern, privileging an approach where resources are shared amongst different people or organisations. Hence, as access outshines property (Gansky 2010), value also shifts, becoming disconnected from ownership. In this way, this P2P production solves the prosperity paradox, distributing wealth via value creation in participatory systems of production, and value participation through distributed ownership (Tasca & Ulieru 2016, p. 18).

The repercussions of the remodelling of property have wide-reaching consequences. In the comprehensive literature review undertaken by sociologist Joel Garrod about property and blockchain, he "evidences changes to territory, authority and rights, as well as [...] the categories we use to describe and explain the workings of the global economy" (2019, p. 604). Blockchain appears particularly suited to this endeavour, as sociologists Louis Volont

and Walter van Andel state in their essay, *The Blockchain: Free-Riding for the Commons*, noting that it “seems to annihilate the [...] threats that have long been considered to impede the commons” (2018, par. 11). As a distributed and tamper resistant technology, transparency is engrained in its code, and all contributions can be evaluated, which helps with the perceived value of the network (Volont & Andel 2018, par. 3). For example, blockchain can also be implemented in ethical economies as a way to increase sustainability or promote greenness, thanks to traceability, fair trade, and supply chain transparency (Francisco & Swanson, 2018; Kouhizadeh & Sarkis, 2018; Nikolakis & Krishnan, 2018).

Blockchain is an economic system institution that blends “features of competitive markets with the more nuanced forms of governance used within vertically integrated firms and online platforms” (Catalini & Gans 2019, p. 18). This decentralised technology can, hence, generate a shift from exclusivity of the ownership of the means of production, to a collective management of resources. That is, from hierarchical command of labour and surplus value, to flat hierarchies where permissionless contributions create shared value and resources that can be re-used. It is a tool that could facilitate what the collective Telekomunisten (Dmytri Kleiner and Baruch Gottlieb) called Transvestment (2016), a process that describes the transfer of value from one modality to another: from capitalocentrism to community economies. This change implies a political transformation. This consideration paves the way to one of my research questions, which inquire about today’s ability of enacting dissent. I argue that this shift is also a form of disobedience with traditional structures and it promotes a counter-hegemonic order, which will be further explained in Part III.

### **1.3.3 Governance In Commons-Oriented Communities**

Having now explained how blockchain can facilitate an infrastructure that reframes value, this section continues by unfolding two blockchain affordances and its implications: tokenisation and alternative forms of governance. Blockchain provides economic and contractual tools that could replace key societal functions grounded on automated code-based systems that are resilient, fast, and tamper-proof and can operate globally (de Filippi &

Wright 2018, p. 5). This doesn't mean that blockchain only takes an active role in the shaping of an economic structure; rather, it also facilitates an alternative manner of developing relationships between peers. As economic sociologist Adam Hayes clarifies,

by engendering true peer-to-peer interactions Bitcoin and other blockchains foster more direct personal connections, however mediated by technology, while sidestepping the conventional web of indirect relations between and among individual, firms, institutions, and governing bodies. (2019, p. 51)

Hence, it is of foremost importance for this study to conceptualise this technology as an apparatus of social production, articulated through governance mechanisms with the goal of fostering a commons-oriented community.

Unchaining value from the market, as previously explained, holds a performative impulse that transforms economic practices into assemblages of ideas, human actors, and more-than-human agencies. Tokens, which are a unique feature of blockchain, are likewise socio-technical assemblages (Callon 1998; Latour 2005), which, as Hayes explains “bring people together directly through the radical disintermediation of institutions, which are in turn superseded by a technological locum” (2019, p. 50). Blockchains, as a substitute apparatus channelling social interaction, are not rooted in the logic of capitalism and can thus perform these multi-dimensional values and motivations inherent to a diverse P2P economic system.

### ***Tokens To Make Visible Diverse Values***

In this context, the assessment of diverse values<sup>30</sup> is complex since market mechanisms or money cannot be used as an appraisal method. The challenge is to convey a proxy for value “that is universally applicable and that can be used as a means of comparison between different CBPP projects, in spite of their heterogeneity” (de Filippi 2015, p. 468). Tokens are minimal programmable protocols that regulate a P2P network based on a system of value that

---

<sup>30</sup> I use diverse values in reference to diverse economic systems, which I explained at the beginning of this chapter

is shared by all the peers (Lotti 2018, p. 98). This opens up the possibility of *making visible* the interdependencies between all subjects in the economic decision-making (Roelvink 2016, p. 226). Hence, it can provide worth to those non-capitalocentric values that previously remained on the outskirts of the economic systems of neoliberalism. Thus, what was then only understood as a monetary feature that took the shape of a Bitcoin, can now, as a token, be conceptualised as a whole array of non-monetary interactions like sharing, voting, or reputation schemes. Through this process it becomes a mixed asset: part commodity, part currency, part equity, and part unit of distributed governance.

Tokenisation is a process capable of “transforming the rights to perform an action on an asset into a transferable data element (named token) on the blockchain,” explains blockchain scholar David Rozas<sup>31</sup> (Rozas et al. 2018, p. 8). Hence, through tokens, each network can accordingly programme, via smart contracts, and tailor their kind of social and economic relations, which in turn, makes blockchains socially responsive and context-specific<sup>32</sup>. Diverse, ethical values can now be represented and acknowledged within these new community economic systems. For example, in commons-oriented systems, tokens can make visible not only the contributions and usage of a common pool, but also make perceptible involvement in the social aspects that help maintain the community, like care or social reproduction. “Tokens unleash derivatives’ future-building potential and organisational affordances for the benefit of the inventors of, and participants in, such new social-financial forms,” explains Laura Lotti (2018, p. 97),<sup>33</sup> blockchain researcher and member of the artistic collective Black Swan, which participated in the project I curated at Van Abbemuseum.

Inherently, this process recasts blockchain into a Situated Technology (Bell, Blythe, Gaver, Sengers & Wright 2003), meaning that it is aware of the cultural conditions and

---

<sup>31</sup> David Rozas was part of *White Papers on Dissent* at Van Abbemuseum, where he participated on the panel discussion about “Blockchains and commons.”

<sup>32</sup> In the Project I curated at Van Abbemuseum, workshops and participatory performances acted as embodied forms of knowledge transmission that reflected in this precise way of understanding blockchain as a reactive tool for social organising. It will later be explained in Part IV.

<sup>33</sup> Laura Lotti was part of *White Papers on Dissent* at Van Abbemuseum, where she participated in the artist talk with Black Swan and convened the Hackathon Dinner *The Assets*.



incorporates social connotations into the design of the collaborations. As a result, it comes to be an agent of change that could trigger autonomous non-market determined production and foster new social relations focusing on their commons. Drawing on the work of Huckle and White (2016), Rozas et al. (2018) note that token distribution facilitates the dissemination of value and incentives, as “they may represent equity, decision making power, property ownership or labour certificates with similar properties as those described by Marx” (p. 8). Through tokenisation, a community using blockchain can thus develop a set of rules that will be implemented, evaluated, and, on that account, rewarded through a tokenised system.

### ***Governance Tokens In Commons-Oriented Economies***

Tokens can take a variety<sup>34</sup> of forms and structures and aim to bring about a myriad of economic compositions, which makes it possible to avoid reproducing the logic of capitalism and promoting diverse social production. In order to expand on these goals, I will focus primarily on tokens with purpose and governance attributes. The collective work of the researchers Nazli Cila, Gabriele Ferri, Martijn de Waal, Inte Gloerich, and Tara Karpinski (2020) is significantly helpful for discerning potentials and pitfalls of blockchain structures in commons-oriented communities. They point out that tracking, managing, and negotiating are mechanisms “to critically and reflectively explore the ways in which a technology such as blockchain could contribute to the formation of artificial material commons” (Cila et al. 2020, p. 3).

As we know, blockchain is a “universal, permanent, continuous, consensus-driven, publicly audible, redundant, record-keeping repository” (Swan 2015, p. 44). These public

---

<sup>34</sup> Tokens hold multiple usages and attributes, therefore, its taxonomy is not clear-cut. This study follows that of Oliveira, Zavolokina, Bauer, & Schwabe (2018), which groups them into four sections depending on the role of the token design, identifying purpose, governance, functional, or technical attributes. The first type of tokens are classified by their sense of purpose, for example: class (currency, utility, or security), function (asset, usage, or work token), or their role (right, value exchange). The second category relates to what the token effectively represents and how it relates to the governance of the platform and its incentivisation. Thirdly, tokens with functional attributes are associated to which “methods can be called upon tokens” (Oliveira et al. 2018, p. 9), which translates into their spendability, tradability, burnability, expirability, and fungibility. Lastly, those with technical qualities refer to the underlying technical layer, like the protocol or application in which the token is based.

record-keeping features are especially useful in this context, both in terms of fostering assets as commons, and to regulate the community and structure its social relations<sup>35</sup>. To start with, tokens can track the behaviour of participants—the uses and contributions to the common pool. Another reason is that blockchain facilitates the management of routine tasks as it “enables the delegation of decision-making, monitoring, and evaluating achievements according to the rules encoded in algorithms” (Cila et al. 2020, p. 3). Finally, smart contracts can automate decision-making based on shared pre-defined rules facilitating negotiation in the community. Hence, by means of a higher degree of automatisisation (of issues like rules application, for example) on a smart contract level, it can scale up and accelerate processes, without the implicit bureaucratisation of larger traditional communities (Forte, Larco, and Bruckman 2009; Schweik & English 2013; Viégas, Wattenberg, & McKeon 2007).

Concomitant to this process, tokenization can also help with the social organisation of the commoners, in terms of measuring their participation in the community, resolving conflicts, and the efficacy of the decision-making process. By way of illustration, liquid democracy and quadratic voting are two innovative practices possible in blockchain environments. The first “is a way of making collaborative decisions, which does not depend on elected representatives, but rather on the transient delegation of votes” (Voshmgir 2019, p. 111). The second, quadratic voting, aims to void the tyranny of the majority by allowing people to express how strongly they feel about an issue rather than just whether they are in favour or opposed to it; thus, they can allocate more (or less) of their votes to that position (Posner & Weyl 2018).

These systems encourage alternative relations in a community along with facilitating different approaches to the market. The scope and depth of economic governance is enhanced thanks to new types of coordinating institutions that are native to blockchains (Davidson et al. 2018, p. 654). Blockchain, hence, cannot only be seen as technology merely facilitating economic evolution. Economists Richard Nelson and Bhaven Sampat’s (2001) research on

---

<sup>35</sup> This quote was later used again on the website that I created about the programme I curated at Van Abbemuseum, and that accompanies my research. <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-commons>

the role of institutions in economic performance describes any social technology as one with the potential to trigger an institutional change. Blockchain can act similarly, as it improves institutional efficiency, namely by taking away intermediaries or state regulatory systems. Blockchain facilitates an environment with the “governance properties of a commons and the constitutional, legal and monetary properties of a nation state” (Davidson et al. 2018, p. 654). Although the potential for transformation is clear, the threats of implementing a technology like blockchain are manifold and therefore I will now turn to exploring the nuisance aspects of the technology.

## **1.4 Issues Related to Blockchain Regulatory Frameworks**

Through smart contracts and tokenisation, blockchain communities have the potential to subvert oppressive power structures by providing alternative governance models based on systems of non-market values. Nonetheless, *lex cryptographica*, the private regulatory frameworks that operate on each blockchain, can likewise have the reverse effect: to exacerbate control and generate a dystopia of algorithmic governmentality. Therefore, this section will examine the subsequent problems derived from it, both in terms of processes as well as the intrinsic ones, because *lex cryptographica* can both lead to a process of re-concentration of power and trigger collateral forms of oppression related to the quality of the rules. Accordingly, the potential result can prompt a dislocated normative tempo, moving from an *ex-ante* to an *ex-post*, which could not only inflect greater control over the network, but also lead to a generalised hyper-financialisation.

### **1.4.1 Para-legality.**

A community can decide and implement, via *lex cryptographica*, their own system of value and rules in their internal organisation. As a consequence, these structures have a para-legality, since they do not comply with the law, but their regulations are enforced by the underlying protocol of a blockchain-based network. While this process can potentially re-address hierarchies of power by acknowledging interdependencies, it can also stimulate a translocation of power from the government to other agents or technocratic actors

(Seyedsayamost & Vanderwal 2020, p. 945). As Brekke explains, this process could imply “simply swapping one set of intermediaries (the banks, politicians and legal system) for another (developers, computer scientists and network technology), or, even worse, adding another layer of intermediation and complexity” (2018, p. 61). For example, in the case of data stewardship, governments would likely continue to be accountable if there is a failure or a problem with the quality of the data, which would require the reintermediation of the role of government (Ølnes, Ubacht, & Janseen 2017, p. 21).<sup>36</sup>

#### **1.4.2 New Hierarchies And Bias.**

Correspondingly, blockchain could also replicate bias, influence, or politics (de Filippi & Wright 2018, p. 51; Platero 2014, pp. 79–95), or, it could generate oligarchies (De Filippi & Lavayssiere, 2018; De Filippi & Loveluck, 2016; Freeman, 1972; Shaw & Hill, 2014). As philosopher Oliver Leistert acknowledges, though technology can be empowering, it cannot, alone, modify power relations and improve the distribution of power (2018, p. 379). More likely than not, it will bring power to the Vectorialist Class, which media theorist McKenzie Wark (2004) defines as those who own the communication vectors and who shape the circuits whereby power and wealth is distributed in the digital realm to their benefit.

Wessel Reijers’ study on on-chain governance is also useful to evaluate potential flaws in the technology. He contends that, “arguably then, within the blockchain, sovereignty is distributed at the technological level, rather than explicitly at the political level” (Reijers, O’Brolchain, & Haynes 2016, p. 145). Therefore, although the control of the nodes is, ideally, distributed, there is a risk of concentration, and with it the re-distribution of power towards the technological counterparts.

#### **1.4.3 From Ex-Post To Ex-Ante: Transformations In Normativity.**

The ex-ante nature of *lex cryptographica* brings another set of problems. Once a set of rules is decided, there is limited influence over the smart contracts, which will enforce these norms without discretion. Consequently, the normative system becomes ex-ante rather than ex-post, which makes them more difficult to break, but it’s also harder to define exceptions (De

---

<sup>36</sup> This idea involving government as data stewards was also pointed out by Geert Lovink in the previously mentioned panel discussion “Blockchain and the digital commons.”

Filippi & Hassan, 2016). It could also, due to the apparent complexity of non-human agency, raise a problem of accountability (Brekke 2019, p. 28), which might lead to privatised entities taking advantage of those obscurities (Greenfield 2017).

Furthermore, there are varying threat degrees associated with the diminishing of autonomy. A system of tokenised incentives could lead to the formalisation of social relations, which could have ripple effects. It could, for instance, make explicit and formal relations that were previously personal and implicit, and thus, de-value the contributions based on altruism or social responsibilities (Cila et al. 2020, p. 7). It can also, as Jerry Muller (2018) explained, result in the adaptation of the contributions to the pre-defined categories, which could dis-incentivise innovation and creativity.

It could also provoke a tendency towards accommodation or less reflexivity over time as a consequence of automation (De Filippi & Hassan 2015). It can, additionally, overtly trigger an internalisation of the rules. “Earning badges or achievements may become a duty at a certain point. If a member does not have any badges, he might be seen as an outcast” (Cila et al. 2020, p. 8).

In extreme cases, it can also turn into a Techno-Leviathan situation. As the users comply blindly to the authoritarian rules of the smart contract without the possibility of change, they also lose their agency. “The Leviathan is the sovereign, and once created, it is totalitarian, despite having been created voluntarily by its subjects” (Reijers et al. 2016, p. 142). As a result, *lex cryptographica* can convey a regime of continuous and granular control based on ex-ante regulations that will substitute the traditional ex-post mechanism of punishment. Therefore, control moves away from governments to dwell in private structures where regulation is so prevalent that it modifies the behaviours and activities of the individuals in the public and private spheres in accordance with the pre-set rules (de Fillipi & Wright 2018, p. 54).

The transformation into an ex-ante regulatory regime can also precipitate a hyper-financialised system due to over-tokenisation. Tokens have different uses; for instance, they could convey a reputation system, voting schemes, or digital currencies, or they can also represent a tradable asset. Inherently, they can also be accumulated, which could “entail

extreme risks, such as providing new surface areas and markets for capital accumulation” (Lotti 2018, p. 98). In addition, tokenisation can, as was explained above, convey a regime of use instead of property, which could provide a texture that facilitates a CBPP environment.

However, it could also generate the complete opposite: over capitalisation of the attention economy. Blockchain can timestamp and transparently indicate the transfer and usage of whatever asset is regulated via blockchain. Based on that information, a smart contract can also modulate its uses very specifically. Lotti suggests it can “produce more virulent and capillary forms of extraction in the attention economy, thereby reinforcing familiar dynamics” as “decentralised technologies do not automatically decentralise power” (2018, p. 98). This modulated use-time regimen surpasses ownership and could exploit our attention timespans, which can be properly assessed and profited from.

In summary, although the possibilities of blockchain are plentiful, it is important to remark on the many potential threats. These risks should be accounted for and, accordingly, designed to avoid the perils of ex-ante control diminishing the agency over the system by community peers. Inevitably, blockchain technology has both great potential for emancipation—but also for curbing autonomy.

### **1.5 Using Blockchains As Political Tools**

The allegedly disruptive potential of blockchain is a recurrent topic in a wide range of literature, exposing its radical transformative capacity in terms of economics, politics, and governance (Filippi & Wright 2015; Swan 2015; Tapscott & Tapscott 2018; Vigna & Casey 2018). Nevertheless, it is of foremost importance to carefully consider all the political issues related to a technology that claims to solve it, as Brekke (2019) points out. Accordingly, this section proposes two complementary angles to unfold this issue: a micro and a macro. In 1.5.1, the micro follows the thesis of Brekke (2019), which reflects on the relation between blockchain and the Redistribution of the Sensible (Rancière 2004), and Agonism (Mouffe 2000). Thereafter, built upon this knowledge, in 1.5.2, the macro perspective considers the potential role of blockchain coordination in relation to social movements by analysing the work of sociologist Manuel Castells (2015).

### 1.5.1 Overcoming Neutrality.

Mathematics and code seem to be, more often than not, elevated to languages with a universal value of neutrality, far from mischievous forms of interpretation. Nonetheless, code not only describes but simultaneously executes (Galloway 2006, Hayles 2005). Therefore, it has direct effects, which inevitably encompass political consequences. In this framework, Brekke's thesis, *Disassembling the Trust Machine* (2019), disentangles the complex relations that condition blockchain politically by looking from within the technology, and relating it to the complementary notions of the sensible by Rancière (2004) and agonism by Mouffe (2010).

Rancière describes the sensible (2010, pp. 27–44) as a kind of status quo, or “common sense” that articulates what is right or not, both in actions and subjects. It organises reality spatially and experientially, and translates into norms, culture, ways of speaking, laws, and politics. In contrast, the notion of the political by Mouffe interferes with reality and provokes the redistribution of the sensible: a changed perspective on interaction with our surroundings. This process is never singular and provokes multiple transformations.

Mouffe proposes the idea of Agonism, which denotes a perpetual state with a potential flux, and shares the same motive as the political: to articulate dissent. Based on the idea that it is always impossible to convey a whole, as something will inevitably escape from any definition that aims to encompass it, Agonism represents the constant possibility of renegotiation and change (Mouffe 2005, pp. 19–21). For Mouffe (2005, pp. 76–83), liberal democracy marginalises dissent under a veil of impartiality, and it proposes a version with pre-set formats and conditions by established institutions.

In the same vein, the radical potential of blockchain relies on its capacity to disrupt the given order—namely, the systems implied in capitalism (Brekke 2019, p. 36)—and, as such, it opens up a path towards diverse economies (Brekke 2019, pp. 39–42; Gibson-Graham 2006). Accordingly, blockchain embodies the political, because it can re-articulate the norms and institutions of power of capitalism. For Brekke, this technology is “what might be the dissensus protocols in operation, protocols understood here in a broader sense of the

formal or informal ways that disagreement and incompatibility is dealt with” (2019, p. 43). Implicitly, this would mean that blockchain would enable the possibility of dissensus.

Building on this, Brekke argues that both decentralisation and liberal democracy act in the same way and share a supposed neutrality, which comes to diminish the political power of both. “The proposition of Bitcoin and blockchain was, and still is to a large degree, to translate political and economic questions into a technical problem of decentralised consensus, and then solv[e] it through technical means” (Brekke 2019, p. 43). Therefore, these decentralised technologies were always understood as neutral mechanisms of dissent.

However, Brekke denounces the impossibility of impartiality, and describes three layers where power and the political play out on blockchain: first, the protocol, where politics are encoded immanently; second, the governance layer, which is related to the explicit political decisions taken in the development of the protocol; and third, the interfaces, as in the actual effects of the political in relation to the different contexts and conditions (2019, p. 64). Concomitantly, there are also external relations that influence the political overtones of the technology and its perception to the end user in different modes. On a very basic level, in terms of technology, some aspects are determined by mathematical dynamics, or the capacity of fibre optics (Brekke 2019, p. 31); on a human level, our styles of semantic interpretation cannot accurately grasp machine-learning algorithms (Brekke 2019, p. 23; Burrell 2015, p. 3). Even when those algorithms are graspable, they also need to come from contexts that are reliable and secure, because, as Brekke asserts, “a protocol can be trustless and yet require plenty of trust” (2019, p. 25).

On top of that, the development is also guided by different technical geographical, political, and legal systems, which intersect and mobilise specific agendas and purposes, which media theorist Benjamin Bratton describes in *The Stack* (2016). Hence, politics runs through every single aspect of the composition of blockchain. The technology is not neutral but innately political both in its technical aspects, and in the way that is activated, as it is situated in the techno-political complex. It can, therefore, reproduce (or debunk) the structures of power that it is subjugated by. This context endows the technology with a



political agency, which can be used as the apparatus for dissent and, thus, becomes the answer to one of my research questions.

### **1.5.2 Blockchain As A Counter-Power Tool.**

Brekke's argument just outlined looks inwards and pivots around why the technology is immanently political. Complementary to her approach and built upon this knowledge, my position will now take a macro perspective, looking from the outside towards the technology to understand how to use it, *politically*. My argument acknowledges, thus, its political nuances and re-politicises it, thinking of it as a form of voicing dissent. To navigate this change of perspective, I considered New Social Movement Theory, in particular Castells' *Networks of Outrage and Hope* (2015).

The crisis of legitimacy and representability, together with a degradation of material conditions, precipitated, in the 2010s, collective action outside institutional frameworks (Castells 2003, 2009). As social movements became louder and permeated the world, we all became aware of the Internet's potential as a tool of empowerment that offered a new communicative milieu where everyone could potentially participate in the co-creation of a new world. However, as we also know, in the following years these movements deflated politically, but their "soul" still resonates in the radical, new, and political uses of technology.<sup>37</sup> Whereas the Internet was complicit in the development of those social movements, blockchain technology takes a step forward—it is not only the root but the heart of the change. As activist scholar Emiliano Treré explained in the panel discussion "Blockchains & Activism" at Van Abbemuseum, the technology becomes a rhetorical device that could trigger change.

This section considers how this technology can fork the paths that were opened during the never-ending thread of crises since 2008, forging empowerment using blockchain. The structural versatility and the manifold uses of its affordances are responsive to the polymorphic compositions and desires from new communities born out of previous social movements. Hence, blockchain environments are not channelling social movement as a

---

<sup>37</sup> For example, in Platform Cooperativism or participatory democracy tools like the apps Decidim(fn) or Loomio(fn).

whole; rather, the technology provides a structure for social organising, which reacts to the particular value systems and shared social goals of each community.

### *New Social Movements*

I will first focus on New Social Movements as their configurations work similarly to P2P communities, and share the same desire for autonomy and emancipation. For this reason, I will first assess the characteristics of these New Social Movements, then scrutinise their particular characteristics in relation to blockchain. In this way, I intend to explore the ways blockchain could elucidate a framework that could sustain new social organising. Although New Social Movement Theory is not usually associated with the study of blockchain, I argue that the base composition works similarly in both projects.

One of the fundamental characteristics of New Social Movements is the social base, which is not built by a homogenous group, comprised of one-dimensional individuals. In it, collective identities are conceived as socially constructed (Hunt, Benford, & Snow 1994; Meyer & Whittier 1994). Hence, this polymorphic group is not defined by a unitarian characteristic, but all these different identities are experienced at the same time, dialectically, and are related through manifold combinations and identities (Collins 1990; Morris 1992; Omi & Winant 1986; Taylor & Whittier 1992). This collective experience comes to shape the characteristics of the movement: there is no status-level uniting the collective, but there is congruence between an individual and the movement's values and goals (Buechler 1995, p. 456). Representational constructions do not play a role in the base formation, as media theorist Claus Pias suggests (2016, p. 25). These groups are not primarily constructed around shared myths, narratives, or self-descriptions; neither are they shaped around identity politics. However, an analysis today cannot simply replace representational logic with an operational one. It is, actually, the technological mediation, immediate connectivity, and affective connection that defines which collectives evolve and continue (Pias 2016, p. 24).

This fluid internal architecture is useful to understand how distributed ledger technology can provide an adaptable social coordination in accordance to the plurality of a group, which is united by the affective connection and shared goals. Sociologist Alberto

Melucci explains that these movements “invoke solidarity, make manifest a conflict, and entail a breach of the limits of compatibility of the system within which the action takes place” (1996, p. 28). Melucci’s theory is based on an assumed overcoming of industrial capitalism and, with it, the old worker-based constituencies for social activism—essentially, the affiliation to a collective in the post-Fordist society, which differs from classical systems such as unions or political parties. Therefore, these collectives are a meta-political challenge to modernity as digital activism triggers new historical types of protest (Brandt 1986). Likewise, blockchain infrastructure conveys a new type of dissent, not only because of the technological possibilities, but because it is heir to these social movements, nested in the same disaffection and challenge to the status quo. The end goal of a movement is not an explicitly political outcome, but discrete political effects.

Although the political status of new social movements is unclear (Melucci 1994; Touraine 1985), they stress the repudiation of contemporary oppressive structures, which happens, likewise, in blockchain. Therefore, in both cases, this type of collective action draws attention to the way the world is socially constructed, and with it, its imbalances and injustices, and brings to the collective the possibility of constructing an alternative together. This desire is integral to the social imagination ingrained in blockchain, which strives to collectively compose opportunities against today’s transgressions.

### ***Meshworking Systems***

Borrowing the term from digital technologies, meshworks function as a local network topology where the infrastructure nodes connect directly, dynamically, and non-hierarchically to self-organise and self-configure. When referring to activism, meshworks function as organisational systems based on digital technologies, which enable P2P contributions to support the entire network, both online and offline. These systems bypass hierarchies of power, procuring informal ways of decentralisation. As such, they were originally designed to overcome crisis situations (Portmann & Pirzada 2008) like uprisings, or as a way to avoid control in totalitarian regimes (Hasan et al. 2013). Now, thanks to blockchain, this mode of organising can be formalised on a code level.

By analogy with the concept of commons-based peer production (Benkler 2006), mesh-working constitutes an attempt to transpose the concept of open-source cooperation in the physical world (De Filippi 2015). It provides an inclusive form of governance that is based on cooperation among peers (De Filippi 2015). Correspondingly, the structure of the protest groups reverberates with the Free Culture Movement (FCM). Meshworks are articulated through peer-to-peer collaboration in epistemic crowds, where “individual users contribute their own resources to the overall operations of the network, and the greater the number of users, the greater the value of the network as a whole” (De Filippi 2015, p. 307). For social researcher Mayo Fuster, these two movements work analogously since they are both dedicated to creating a common pool which everyone could easily join and participate in (2012, p. 391).

Although this system of organisation has proven its efficiency in recent years, it is important to remark on the necessity of developing structures that also deal with community internalities, such as decision-making mechanisms, forms of internal organisation, and the division of tasks. However, blockchain affordances could potentially solve many of these issues through smart contracts and token design. If these issues are neglected, the movement cannot scale up without having developed essential pillars of support (Tufekci 2018, p. 221). If we think of movements like Gezi (Istanbul) or Indignados (Spain), the lack of conflict resolution or a decision-making process aggravated the incapacity to secure a political standpoint in spite of a massive following and international repercussions. Both movements were unable to envisage a solution or submit a proposal to government. If we think of a similar structure grounded in blockchain, these problems could be avoided, as internalities can be automatised.

### *Space, Communication, Kin, And Values*

Blockchain can imply place-based politics for a community that doesn't necessarily reside in the same location anymore, but it is composed by trans-localised individuals. This expansion of place-based politics to a global, digital context can lead to the re-appropriation, re-construction, and re-invention of practices and possibilities (Harcourt 2014). But first, I

would like to look back to protestors occupying public space to understand the symbolic power of invading sites of authority. By appropriating these sites and generating a new place for deliberation, they convey a political space where civil society, together, can recover its rights of representation (Castells 2015, p. 10). The feeling of kinship is at the outset of the formation of a community, it “implies a set of common values, and it is a work-in-progress in the movement, since most people come to it with their own motivations and goals” (Castells 2015, p. 253). Occupying, hence, translates into the collective production of a new political space for autonomous decision-making, as well as the way to set off an incipient sense of commonality.

In this framework, having communication networks free from institutional control is of foremost importance (Benkler 2016; Castells 2015; Chafee 1948), because the intention of social movements is to raise awareness (Castells 2015; Melucci 1989). I would argue that it is even more important when we think of a decentralised community, whose communication happens always virtually and many times asynchronously. In this way, civil society is empowered through participation in the deliberation processes of the movement. Consequently, when the communicative flows move towards alternative milieus like social media, two reciprocal processes take place: while those streams avoid state coercion and generate a separate texture for the co-design of the movement, “the more the public sphere of communication becomes a contested terrain” (Castells 2015, p. 264). This argument becomes progressively more poignant when we consider how digital monopolies are co-opting the media-scape, as in the case of Amazon buying *The Washington Post*, or Facebook’s advertising campaign in the 2016 US presidential elections. Castells asserts that the Internet provides the communications platform to translate the culture of freedom into the practice of autonomy (2015, p. 259). However, I argue, the centralised Web 2.0 was only a symptom of freedom and was seized by digital monopolies; whereas the decentralised Web 3.0 is an exercise of autonomy, as it provides an independent and collectively owned communicative environment, which is censorship resistant and tamper-proof.

In 1983, Castells already pinpointed that the demands of urban protest movements focused on the forms of collective consumption provided by the state, as these movements

aimed at challenging the capitalist logic of surplus value extraction by prioritising the provision of use value in a community context. For example, the demonstrations of Indignados in Spain brought forms of diverse economic systems (Gibson-Graham 2016) in the shape of solidarity economies (Wigger 2018) inspired by co-operativism. This system was based on “decentralised peer-to-peer producer and consumer networks” (Wigger 2018, p. 45). with different separate fields and services working together providing a “circuit that transcends capitalist forms of organisation and production” (2018, p. 45). As a result, this solidarity economy relies on “fewer supervisory and management layers and a higher degree of social inclusion in terms of gender, age and (dis)ability, as well as migrants” (Wigger 2018 p. 45). These characteristics endow the community with political resistance, acting as a real alternative and a continuation of the anti-establishment movement that precedes it.

### **1.5.3 The Potential of Blockchain to Challenge New Social Movements.**

Blockchain makes available a digital infrastructure that is responsive to the values that the New Social Movements put forward. It provides a space of possibility for them to flourish as the technology represents noncompliance with the hierarchies and regulatory principles of the networks of power. It represents a free space with its own communication networks. To Castells, this context comes to challenge “the disciplinary institutional order by reclaiming the space of the city for its citizens” (2015, p. 250). Blockchain infrastructure turns into the embodiment of counter-power.

Castells explains that these movements are a deliberate attempt to change power relationships, “by reprogramming networks around alternative interests and values, and/or disrupting the dominant switches while switching networks of resistance and social change” (2015, p. 9). By its very nature, blockchain acts in the same manner. The technology is capable of bringing to life social constructions hinged on utopian dreams in occupied spaces. In the same manner, blockchain provides a type of social coordination that embodies the diverse values inherent in a commons-oriented economic system which were already present in the movements, and, collaterally, facilitates an escape from surveillance capitalism.

As a result, blockchain performs a hybrid space that can, accordingly, channel the goals of preceding social movements in three ways: first, it offers a communicative environment that is decentralised and uncensored; second, it formalises the decision-making processes of the assemblies in occupied spaces into a full governance system articulated through smart contracts; and third, it catalyses the values of a commonality into a transparent community blockchain governance structure. In this way, this decentralised technology encompasses the Timeless Time described by Castells, “free of the chronological constraints of their previous disciplined daily lives” (2015, p. 251). These activist groups live in the moment in terms of their experience and organise as if they were living in their utopia (Castells 2015, p. 251). This dual experience of time, in which their ideals become the norms ruling their present is analogous to the temporal matrix of blockchain. The ex-ante regulatory framework is based on an agreed value system that determines the experience of the present of the community through smart contracts which, in turn, also define their future interactions.<sup>38</sup>

Correspondingly, it turns blockchain into Institutional Technology, which “introduces a new mode of economic coordination and governance” (Davidson et al. 2018, p. 647). As a result, it formalises the structure of a movement, which was previously reliant on “ad hoc deliberation and protest, not on fulfilling a programme built around [the] same goals” (Castells 2015, p. 255). Governance architectures using blockchain can also make visible ethical values and the social interdependencies that constitute them. Therefore, as Marilyn Strathern (1992) points out, this process of acknowledging also endows with value the processes related to the making of a community.

In summary, blockchain technology is a versatile structure that responds to the value system of any social movement. It provides a Free Space<sup>39</sup>, a symbolic place for politics (Harcourt 2014) that is necessary for those movements to develop their own project of dissidence, where non-market values determine the socio-economic organisation of a

---

<sup>38</sup> This will be further explained in Part III, based on the understanding of utopia as a simulacrum described by Miguel Abensour, along with its prefigurative characteristics described by Luke Yates.

<sup>39</sup> This idea will be further developed in Part III, based on the study of Anton Törnberg (2021).

particular community. As Brekke anticipates, “the potential for disruption is that a given distribution of the sensible is never singular” (Brekke 2019, p. 39). Without power asymmetries and through P2P collaboration, these alternative social constructions utilise blockchain affordances to constitute their trustworthy communicative channels and governance mechanisms responding to their granular necessities<sup>40</sup>. “The transition from individualisation to autonomy is operated through networking, which allows individual actors to build their autonomy with likeminded people in the networks of their choice” (Castells 2015, p. 259). Therefore, the precursory mesh-working and the incipient commonality turns into the breeding ground, which blockchain ecosystems bring to fruition, carrying their intentions and values born out of social movement towards their own space of autonomy.

## 1.6 Conclusion

Massimo de Angelis holds that “if we do not ground our critique of mainstream discourse on the problematisation of this law of value, then we will not be able to gain discursive, practice and political autonomy from the interests and value practices of capital” (2007, p. 151). To do so, this chapter has explored the potentials of blockchain as a disruptive structure that could propose notions of value in a non-capitalocentric manner. However, this chapter was neither an attempt to exhaustively describe the financial possibilities of blockchain, nor to provide a comprehensive political overview; rather, the goal was to move away from those notions to look at its social potential.

Consequently, my analysis focused on blockchain’s capacity to re-formulate social relations and re-address power structures to expose its potential to become an apparatus for social constructions of autonomy. This chapter was, thus, an invitation to rethink blockchain as an organisational tool that can build pockets of resistance that empower a community in their quest for emancipation. Naturally, the technology is not going to code-away all our problems. It needs to be thought politically in order to have the ability to redesign socially.

---

<sup>40</sup> This quote was later used again on the website that I created about the programme I curated at Van Abbemuseum, and that accompanies my research. One can find the text here: <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-digital-activism>



Every different configuration of a blockchain constructs its own social reality, not only because the use of the blockchain is based on a particular worldview, but because this decentralised technology has the capacity to stage those specific versions. It can prefiguratively embody the political imaginary that was previously only aimed at. This emancipatory capacity is plural, since the redistribution of the sensible is manifold. Blockchain, hence, can be created and recreated, countlessly adapting its polymorphic composition to a particular worldview, desires, and values. Blockchain can be put to work for any project. Hence, this chapter investigated the margins of economic discourses and practice at the outskirts of the political terrain. The goal was to think of the technology not as a capital venture, but as a social apparatus that could formulate value otherwise. Blockchain is not inherently revolutionary, but it can trigger revolution.

Digital decentralised ecosystems enhance criticality and raise the desire for autonomy, constituting radical forms of self-organisation that carry prospects and attitudes that are introduced through a newfound sense of self-determination. Decentralisation not only provides alternative forms of coordination, it also brings about value in a community. This underlying relation between decentralisation and value comes to be a fundamental notion to foster the desire for autonomy within the structure.

The subversive potential of blockchain is nested in its plasticity, which permits the moulding of new rules, institutions, social orders, politics, and economies. Blockchain not only dis-intermediates institutions, it becomes the very institutions that it succeeds. Hayes argues that “due to the flexible, configurable, and open nature of blockchain code, they are indeed sandboxes for institution creation and experimentation” (2019, p. 66). Those new substitute blockchain institutions could overcome capitalist thought, liberating the notion of value from the subjugation of that hegemonic conceptualisation. By queering it, as Gibson-Graham (2006) would say, value becomes plural and diverse.

Far away from productivity, scarcity, or property, value is ethical and communitarian—worth is allocated to what makes the *commonality of being* (Nancy 1991). Blockchain can, in this way, compose a governance structure that could re-address immanent power dynamics in the group by providing visibility and assessing the relevance of the tasks

that come to support the *making* of the community. As a result, this alternative techno-social configuration can spawn social formations that make visible often-forgotten tasks such as care labour (Pérez-Orozco 2014, pp. 92–94), conflict management, social innovation, or social reproductions.

This decentralised technology can organise these incipient ecosystems as autonomous from the world of global finance, by programming social and economic relations in a peer-to-peer manner, thereby fostering social surplus. Consequently, blockchain technologies become hyper-political tools that can overcome the current socio-political stagnation due to distrust of our political systems. It does so by virtue of an alternative mode of organising economic activity that is not based on the accumulation of capital. As a result, blockchains offer paths to emancipation thanks to the structural versatility of its affordances, which provide a resilient framework to channel alternative world-views. Blockchain can, therefore, channel the manifold compositions of different communities from a social movement, endowing them with a new hybrid space of possibility. By occupying the symbolic digital space, blockchain, appropriated by these communities, can meticulously adjust its governance to respond to the shared value systems and collective goals. Blockchain can, therefore, become a space of autonomy.

## Part II: Digital Critical Practices

*Critique does not have premises of a thinking that exclusively explains: and this is what is to be done now. It must be an instrument for those who fight, resist, and who no longer want what is. It must be used in process of conflict, confrontation and resistance attempts. It must be the law of the law. It is not a stage in a programme. It is a challenge to the status quo.*

Michel Foucault, Roundtable, 20 May 1978 (1997)

Critique is inevitably tied to crisis, to a throbbing feeling of emergency that compels people to act. Art critic Boris Buden says that “an act of criticism almost necessarily implies the awareness of a crisis and vice versa; a diagnosis of crisis implies the necessity of criticism” (2009, p. 34). Consequently, it comes as no surprise that the reaction of a creative mass is to respond to this moment of prevailing control and fragmentation with critical practices. Buden continues, “to say that something has gone into crisis meant, above all, to say that it has become old. [...] Criticism is nothing but the act of this judgement, which helps the old to die quickly and the new to be born easily” (2009, p. 35). This duality joins the end and beginning, providing a fertile ground to explore radical transformations in praxis and theory. It calls for new models and alternative forms engaging with an accelerated and fragmented post-digital reality.

In this context, Part II aims to respond to one of my research questions, which inquires about the role of art in the post-digital society’s utopias. Naturally, I build upon the findings on Part I about blockchain and try to transpose them to the artistic practices using the technology. For these reasons, this investigation explores the lineage opened by the myriad encounters between art and technology, which have provided ongoing forms of experimentation that expand the limits of both fields, testing audience experiences and issues of museological practice, such as conservation, curation, and display. It continues with an exploration of artistic practices using blockchain, analysing its social potential. Therefore, I do not focus on all blockchain related artworks, but only in the ones that are interested in the

technology to trigger social production and reproduction. This chapter goes beyond a description of medium specificity, understanding digital art as a form of critique attuned to the problems and concerns of a post-digital society. To do so, it will focus first on how these practices stimulate Institutional Critique and how they constitute a new socially engaged format. In this way, this chapter offers a different framework of analysis for digital art, situating it as a form of critique engaging with accelerated algorithmic futures and their post-digital communities. After that, I then move into the specifics of blockchain artistic practices beyond NFTs, tracing its roots to the legacy of the avant-garde and Joseph Beuys.

## **2.1 Digital Art as Institutional Critique**

In the twentieth century, the concept of art evolved to include new expressions, such as performances, installations, or artefacts from non-Western traditions. Art historian Jackson Gaiger explains that “the struggle to establish the status of new or previously excluded objects and practices as artworks takes place through a process of negotiation and revision of the normative assumptions that underpin established art practice” (2009, p. 44). Digital art, by its very nature, has challenged the limits that shape the structures of the art world: from conventional models of ownership and distribution, to participation and interaction. Although its status is no longer in question, I would argue that its analysis is not yet complete and is often involved only with aesthetics (Crowther 2008; Gsöllpointner 2016; Kwastek 2013), leaving out other productive sources of investigation.

In contrast, this section offers a different approach: one that inscribes digital art within the tradition of Institutional Critique, which is here understood as a method instead of a historical period (Sheikh 2009). In this way, Institutional Critique does not follow epochs with clear borders, but cumulative processes that intersect in the different forms of New Media. Though they are often seen to have separate genealogies, New Media Art and Institutional Critique share distinctive features such as formal experimentation, participation, and collaboration. These characteristics call into question the authority of the institution as a system of valorisation. Therefore, my examination aims at continuing the lineage of New

Media, including new digital practices, inserting them within the legacy of Institutional Critique. This section will analyse the parallelisms between the two consecutive waves of Institutional Critique with the coetaneous New Media practices. This investigation aims to position digital art within the art historical canon, by considering its potential to deepen the project of critique by attuning it to the characteristics of a post-digital society.

### **2.1.1 The First Wave Of Institutional Critique And Early New Media Art.**

New Media is defined as a

comprehensive term that encompasses art forms that are either produced, modified, and transmitted by means of new media/digital technologies or, in a broader sense, make use of “new” and emerging technologies that originate from a scientific, military, or industrial context. (Grau 2016)

Correspondingly, as Christiane Paul writes, “Hal Foster described Institutional Critique as a crossing of the institutions of art, political economy, and representations of social life”(Paul 2006, p.1) . Following two consecutive waves, this term has evolved and tapped into different ways of addressing the institutional context, related to a shift in the understanding of space.

In the first wave, during the 1960s and 1970s, space was conceptualised as a social construction. Marchart considers space not as “an unchanging terrain that had always existed and upon which society had been erected,” but instead notes that “the specific structure of space was the result of social, economic and political process” (Marchart 2019, p. 105).

Institutional space was thus a render of the power structures of the art world and, consequently, its financial and political principles.

In an attempt to disrupt property circuits, the first wave’s artists responded with dematerialisation and conceptualisation, putting new emphasis on processes and communication (Lippard 1973). Events like Happenings or performances acquired the status of art. They became a form of criticism in themselves, which addressed the political and

economic conditions of the physical location that hosted them: the art institution.<sup>41</sup> This first wave of dematerialisation was thus a symptom and a reaction to the system, a way to subvert those structures, with Foster (1982) notoriously claiming that the institution had become a target and weapon.

However, despite artists' desire to problematise the institution, those same institutions quickly took over the movement itself. Art could not avoid the power of market and the institutions of power. These practices did not escape the cycles of appropriation and speculation. The art market did the same with them, when it assimilated and swallowed those dematerialised forms of critical conceptual art.

Contemporaneous to this first wave, new media arose as a new form of artistic experimentation. It shared the same processual and dematerialised nature, although it was rooted on the outskirts of art circles, rendering different power structures. New Media's critique was thus addressed to other hegemonic systems, which weren't necessarily related to the politics and economics of the art world, making this genre less susceptible to their co-option.

The roots of the coetaneous New Media experiments by the artists of Fluxus and cybernetic art were located in universities and other research-oriented labs. As Howard Rheingold (1995) and Fred Moody (1999), precursors of the social study of the Internet, have explained, the first incubators of New Media Art were in fact defence-funded universities and industry research labs, where artists and engineers collaborated in pioneering investigations without a fixed ideology. For instance, cybernetic artists like Max Bense were conducting media investigations with independence from the art world. Bense's *Informationsästhetik* (1960) substitutes the traditional idea of the artwork for a more all-encompassing, open-ended notion of "objects that are exposed to aesthetic judgement" (Büscher 2004, p. 229).

Furthermore, the borders between scientific and artistic experimental uses of computers were not clear-cut. As media theorist Max Zeilinger clarifies, the "refusal of early

---

<sup>41</sup> It is interesting to note the relation here to Institutional Critique with the research of Miwon Kwon on "One place after another," as her study also engages, politically, with the conditions of the work's site; in this case, the art institution.

experimental practitioners to choose between binary options ('Is this art or research?') was a commitment to developing truly new frameworks for, and approaches to, digital art-making and human-computer interaction" (2018, p. 35). Thus, as Johanna Drucker argues, the process of "technologising art and aestheticising technology were complementary impulses at the time" (2005, p. 36).

Likewise, Fluxus spread, conceptually and materially, across different realms, bypassing the art institution. Fluxus artists highlighted processual and event-based practices, whose eccentric nature facilitated a higher degree of autonomy from the art world, and the capacity to question the institution in a more immanent manner. "By the 1950s, Nam June Paik and Wolf Vostell were working with television and dreaming of artist-controlled broadcast media" (Friedman 2005, p. 411). Like conceptual art, these practices also tended towards dematerialised, processual, collaborative, and event-based practices. However, they were conditioned by links between materialities, as Tiziana Terranova argues (2005). Or, as Christiane Paul put it, they were "embedded between various layers of commercial systems and industrial technology that continuously define standards for the materialities of any kind of hardware components (2006, p. 2). Inevitably, New Media Art is profoundly determined by the rich evolution in communication and technology, which came to be its investigative focus.

### **2.1.2 The Disappearing Figure Of The Author and The Immateriality Of The Work.**

New Media's and Conceptual Art's formal experimentation exacerbates the necessity to activate the audience in the meaning-making process. The audience becomes more present, working and engaging in the decoding of the work, which in turn altered the traditional figure of the author. As Roland Barthes explained in "The Death of the Author" (1967), the individual interpretation of a work is above the any "definitive" meaning intended by the author. This transformation, Gaiger remarks, implied a radical change in art practice as it meant abandoning one of the central components of the modern concept of art: "the production of an identifiable and self-subsistent work, and even the importance attached to the provision of aesthetic pleasure" (2009, p. 45).

Moreover, the advent of new communicative environments with speedier forms of dissemination came to reinforce the abandonment of the priority accorded to the solitary author. Conceptual practices like the mail art of the New York Correspondence School or the Xerox Book of Seth Siegelaub surged as a reaction to this acceleration, dissipating the relevance of sole authorship, and dematerialising practice to circumvent the market. For art historian Alexander Alberro, these 1960s radical practices are related to the proliferation and velocity of new formats, types of consumption, and an increase in advertising, as well as swifter change in fashion and style cycles (2003, p. 2).

Correspondingly, Fluxus's formal experimentations brought to the fore the figure of the audience and encouraged new ways of involvement, where instructions or scores set in motion audience participation. For example, Dick Higgins's *Intermedia Object #1* (1966) materialised in performable scores that were used in a Happening. These event-based Fluxus works highlighted three issues: first, the necessity of an engagement with an audience, who became more active in the reception and the making of the artwork; second, they underlined the immaterial nature of the artwork; and third, they paid attention to the aesthetic potential of everyday life, surpassing the museum as the only platform for artistic experiences<sup>42</sup>.

These characteristics connect digital art and Fluxus and Dada, as Paul affirms when she notes that "the layer of 'code' and algorithmic instructions in digital art<sup>43</sup> constitutes a conceptual level which connects to Dada and Fluxus experiments with formal variations and the conceptual pieces by Duchamp, John Cage, and Sol LeWitt, based on the execution of rules" (2006, p. 2). Both practices thus used similar types of formal experimentation to engage with the institutional structures that support them. However, New Media artists managed to avoid, more or less successfully, the commodification of their work by the market, until recently and the rise of NFTs as objects of desire. This lack of commercial desirability had a collateral effect too: they were also more successful in overcoming the market as a source of valorisation.

---

<sup>42</sup> This abandonment of museum as the unique scenario for art display will become ever more present when I will later address blockchain practices within the legacy of Beuys.

<sup>43</sup> If we think of NFTs, this becomes even clearer, as these artworks are mere contracts store in a blockchain, which then point towards an jpg or gif, which is then stored somewhere else.



### 2.1.3 The Second Wave of Institutional Critique and New Media Art.

The understanding of space was again revised in the 1980s, when it was realised that it is “not only a social construction, but inversely, the social sphere is also spatially constructed” (Marchart 2019, p. 104). Whereas the first wave of Institutional Critique questioned the authoritarian role of the cultural institution, the artists of the second wave switched their attention to the politics of representation within it. Brian Holmes argues that this wave focused on “examining its links to economic power and its epistemological roots. [...] They added a subjectivity turn, [...] which allowed them to recast external power hierarchies as ambivalences within the self” (2004, p. 57). These practices happened within the frontiers of the museum, not engaging with its specifics, as did the preceding generation, but utilising it as a proxy for all institutions, which came to represent the hierarchies of power.

Importantly, these practices share the same goal as those of the activists of the New Social Movement. As explained in Part I, Melucci argues that these movements “invoke solidarity, make manifest a conflict, and entail a breach of the limits of compatibility of the system within which the action takes place” (1989, p. 28). As museum scholar Richard Sandell affirms, art institutions have come to represent their purpose and value in social terms, and have come to be an active agent representing the plurality of the population and an advocate for social change (Sandell 2002, 2007). The institution embodies an exploration of the role of collective identity in the formation of collective action.

The coetaneous New Media Art responded to the changed notion of space differently, having in mind the specific characteristics of its medium, and the particular political context of the structures that support it. These artists were more aware and responsive to technological innovations as well as to developments in the history of technology and media sciences. The evolution played, indeed, a similar contribution in the making and reception of the New Media practices (Paul 2006, p. 1), providing a different angle to tap into collective identity and action. For instance, *The McBride Report*, published in 1980 by UNESCO, is one of the first comprehensive studies relating the connection between media and power. The report delved into how disparate access to communication affects the economic and political development of nations, their inhabitants, and individuals (UNESCO 1980, p. 141).

Media artists of that time reacted to these kinds of theoretical advances by putting the spotlight on world media infrastructures and their influence on society. The critical engagement of New Media Art was rerouted towards the techno-cultural complex, instead of focusing on representation within fine art institutions and acting within its confines. To illustrate this trend, Nettime mailing list was one of the main vectors of distribution of net art on the 1990s, integrating artists, theorists, media activists, and programmers. It proposed an immanent critique of the Internet, which inquired into its techno-scientific structures while they were still developing. As Holmes observes,

this critique was to be carried out inside the network itself, using its languages and its technical tools and focusing on its characteristic objects, with the goal of influencing or even of directly shaping its development—but without refusing the possibilities of distribution outside this circuit. (2009, p. 54)

For Holmes, the change reveals a double movement that makes the two waves of Institutional Critique overlap in the same New Media practices. One is an inwards movement that addressed the particularities of the medium from within; the other looks outwards, trying to procure a change outside the realm of action, which addressed the power structures at large.

#### **2.1.4 Digital Art As Extra-disciplinary Investigations.**

Today's New Media practices are diverse, using digital technologies as the source of investigation and medium of engagement with very different outcomes. From research visualisations to interactive installations, they are symptoms of the techno-political context, and agents against it too<sup>44</sup>. They continue to deepen the project of Institutional Critique and generate new formats that are attuned to the current forms of algorithmic oppression and control.

---

<sup>44</sup> This idea is central in understanding how blockchain artistic practices are responses to the socio-political complex and also forces against it too. As we have seen in Part I, blockchain configurations respond to the texture in which it is implemented, whether a hyper-financial solution or a commons-oriented economy. And, thus, due to this plasticity, it could also provide an infrastructure against hegemonic systems of power.

These practices can be considered extra-disciplinary investigations, and they open up new possibilities of expression, analysis, cooperation, and commitment (Holmes 2009, p. 54). They have come to epitomise both the dematerialisation and performativity of the first wave and the critical engagement with the structures supporting their practice of the second. I argue that digital art could also be considered an extra-disciplinary investigation. First, digital art continues the lineage of New Media and enhances the project of critique in a new manner. It does so because it can circumvent the art system of valorisation and commodification, because it needs it for neither production nor presentation (Expósito 2009, p. 142; Goriunova 2016, p. 303; Paul 2006, p. 6). Digital art, therefore, holds a novel sense of agency that translates into a more systematic critique of the institutions of power, and is far-reaching in its approach.

In contrast, traditional forms of Institutional Critique have become, for many artists and theoreticians, ineffective. Art historian Benjamin Buchloh affirms that this type of critique is now being performed by “administrative aestheticians,” like curators or museum directors (1990). Sheikh furthers this sentiment, arguing that these forms of critique “are not an effort to oppose or even destroy the institution, but rather to modify and solidify it” (Sheikh 2006, p. 1). Similarly, to Fraser (2005), this means critique has become completely internalised<sup>45</sup>.

New Media nowadays engages with issues of control and oppression of our contemporary society using digital formats that stretch out of the institution itself. For example, the multidisciplinary group Forensic Architecture uses architectural techniques and new technologies to investigate cases of state violence and violations of human rights around the world. Their polymorphic investigations are presented in museums, international courtrooms, parliamentary inquiries, and United Nations (UN) assemblies, as well as in citizens’ tribunals and truth commissions. Holmes holds that these type of new media projects

---

<sup>45</sup> I refer to this new institutionalised critique in the Introduction when I explain my methodological approach,

can no longer be unambiguously defined as art. They are based, instead, on a circulation between disciplines, often involving the very critical reserve of marginal or countercultural positions—social movements, political associations, squats, autonomous universities—which can't be reduced to an all-embracing institution. (2009, p. 58)

Hence, they surpass the logic of the museum structurally and intentionally.

In the first place, digital art's materiality is determined by its process-oriented nature “that is inherently collaborative, participatory, networked and variable” (Paul 2006, p. 1). As a result, mediation “allows for the building of collaborative tools for and by human subjects, work to be performed online, or data to be produced easily and moved freely” (Goriunova 2016, p. 300). Furthermore, the role of the artist has evolved, as they often perform the role of facilitator, since they often work through collaborative networks of likeminded artists, programmers, researchers, curators, engineers, or scientists (Paul 2006, p. 5). The *raison d'être* of this collaboration is political engagement, which drives them together to further their research beyond the limits of an artistic or academic discipline (Holmes 2009, p. 59).

The roots of these investigations are not in the research labs or defence-funded universities that funded previous New Media experimentations. They are in humanities departments at public universities focusing on Visual Culture, meaning a practice-related theory that grounds projects like, for example, Forensic Architecture at Goldsmiths in London, and at private education centres, like the multiple projects born out of the post-academic institution Strelka in Moscow under media theorist Bratton's directorship. Digital art expert Olga Goriunova further explains that these artworks are “computationally emerging from the work of multiple authors, some of which are not necessarily human but nevertheless are active in shaping and engendering it, such as discussion boards, bots, software scripts, networks, and data packages” (2016, p. 301). Therefore, there is a subtle process of co-creation between non-humans and humans, which affects traditional notions of authorship and authenticity (Cueto & Hendrikx 2017).

### 2.1.5 Digital art's Institutional Critique

Digital art challenges classic models that used to shape the art institution, ultimately raising the question of its function in terms of display, mediation, and reproduction. These critical practices encourage expanded versions of spectatorship, production, and collaboration. They also resist traditional and physical models as they frequently rely on code and reproductive data, which challenges issues of ownership, copyright, and branding (Paul 2006, p. 7).

As a consequence, the current ways of exhibiting and collecting digital art tend to be amiss, which I will explain later on. They pose curatorial issues because of the difficulty that it poses to facilitate modes of engagement that can guarantee the proper unravelling of the artwork. Moreover, technically, these artworks need continuous upkeep and appropriate equipment. I would argue that it is these two issues that have led to the slow adaptation of digital art in the museological context and that have generated the fatigue of recurrent ill-fitting presentation models. For me, this is how the Institutional Critique coming from New Media becomes ever more poignant. Paul asks, “how can institutions present and archive the visual culture arising from an artistic practice shaped by real-time processing and entailing instating remix, production, distribution and reception that unfold outside the museum space itself?” (2006, p. 9). Similarly to performance art, digital practices confront the traditional space-bound and object-based understanding of an archive (Borggreen 2013, p. 387), ultimately raising the question of the purpose of the institution as an archive of cultural memory.<sup>46</sup>

The critique coming from digital media expands across realms and calls for a much more fundamental inquiry into the institutions at large. By using formal experimentation and multi-disciplinary and translocal collaboration, they raise awareness in diverse audiences and provide new forms of interaction that exceed museological rationale. As Holmes observes,

Their inventors, who came of age in the universe of cognitive capitals, are drawn towards complex social functions which they seize upon in all their technical detail,

---

<sup>46</sup> This idea became relevant when I developed the first exhibition for *White Papers on Dissent*, and explains why I decided to use a repertoire as a curatorial approach.

and in full awareness that the second nature of the world is now shaped by technology and organisational form. (Holmes 2009, p. 59)

Practitioners of digital art aim at laying bare the structures of power to reveal this new reality, where digital and physical are on a continuum.

In this enlarged terrain of struggle, these practitioners go through and within the institutions to provide a nuanced and new understanding of Institutional Critique using a type of analysis that surpasses the art world and a type of engagement that reaches beyond museum goers. The art institution's traditional form and function is thus called into question, as neither its shape nor its function fulfils the necessities of these new types of experimentation with new technologies. As I previously mentioned, both collecting and exhibiting digital practices miss their purpose. For instance, one of the obvious repercussions of Covid-19 for the art world has been the burgeoning of online events, ranging from digital exhibitions, numerous online assemblies and conferences, to the multiple online residency experiments. Although these curatorial approaches are gaining momentum, there are few<sup>47</sup> that manage to successfully provide the right environment for the artworks and to stimulate audience engagement. These curatorial projects are conceived as if they were experiences in the physical realm but use digital tools as the most literal form of translation: a conference becomes a digital meeting (aka video platform) or a physical exhibition is rendered as a 3D interactive model (aka Google Maps).

In contrast, though contingent to protocols and technical limitations, digital art today generates its own spaces and exists globally, through online communities. Digital art is not an adaptation, it is native and speaks a critical digital vernacular. Inevitably, this also represents a crisis, one that asks for the old model to slowly die, so that new one might rise quickly.

## 2.2 Towards Socially Engaged Digital Art

Having outlined digital art's relation with Institutional Critique, this section will now follow a different (and complementary) angle of analysis by looking at its link with Social Practice

---

<sup>47</sup> For example, the project *Paranoia TV* from the sterisches Herbst in Graz. The festival has been one of the most successful programmes to translate their entire programme into an App.

Art. I would argue that both movements are built upon the same critical outlook and focus on the same power structures. However, I will examine the ways that, differently to Institutional Critique, the active involvement of digital art is trying to effect change, and I will situate it as a form of art activism (Groys 2014; Lippard 1984). Using the example of Tactical Media, this research explores the conceptual and formal similitude between social practice and digital art. Finally, through an analysis of *HyperReadings* (2018), a digital artwork by Sean Dockray, Benjamin Forster, and Julia Bavyka, I will investigate the possibilities of conceptualising digital art beyond medium specificity. This reflection concludes by reframing digital art as a new medium for social practices adapted to the necessities of contemporary post-digital society, which answers my research questions about the role of art in today's post-digital society.

### **2.2.1 The Political Undertones Of Digital Art**

As a consequence of the transversality of the collaborative process (Holmes 2009) and expanded spectatorship (Paul 2006), Institutional Critique's two waves steadily transformed the process of valorisation. The situation provoked a shift towards artistic heteronomy, defined as "the principle that art should be evaluated by standards of other fields, such as politics, religion, ethics and knowledge" (Simoniti 2018, p. 74). As a ramification of the social turn (Gaiger 2009), new political, activist, and participatory practices emerged in the 1990s and crystallised in what is called socially engaged art, or critical practice in American circles.<sup>48</sup> These terms are variously used to refer to a broad type of art projects that focus on participation and engagement with specific communities to achieve change on a local scale (Serafini 2018, p. 2). It is, just like the previous Institutional Critique, committed to commentary on structures of power, but is ultimately concerned with and reacts against the effects of late capitalism (Bishop 2012; Lind 2010; Lütticken 2017; Sholette 2017).

Similarly, digital practices like Tactical Media also reacted to the sweeping effects of neoliberalism by appropriating cheap, readily available technologies for engendering political

---

<sup>48</sup> I will use both terms interchangeably.

resistance in socially disenfranchised populations (Garcia & Lovink 1997). The internet was still in its outset in the 1990s and provided a new communication channel that contemporary anti-globalisation movements rapidly took over to create a new form of protest (Medosch 2016, p. 356). This appropriation generated a new form of engagement with audiences and power structures alike, just like the coetaneous critical practices. Tactical Media not only entailed a new form of activism with new set of skills and a wide-ranging set of actions, but also the integration of politics, aesthetics, and technology, which is one of the key legacies of this movement (Lovink & Rossiter 2018).

In this framework, the notion of community acquires a new meaning. It makes visible the importance of the *Being-With*, which Gibson-Graham assure us is the cornerstone of “the counter-hegemonic project of ‘differently politicising’ the economy” (2006, p. 84). Far from relational aesthetics, the notion of communal experiences denotes a political aspiration. It does so because it becomes a way to foster social surplus to trigger social change and counteract individualising neoliberal forces, the passivity of the audience, and the disempowerment of non-authors (Billing, Lind, & Nilsson 2007; Bishop 2012; Goriunova 2016; Stimson & Sholette 2007).

The Tactical Media Manifesto (Garcia & Lovink, 1997) spawns a reflection that address the power of digital commons around the 2000s,<sup>49</sup> highlighting them “as a space for sharing, learning, and collaborative culture in general” and thus forgoing the more combative contours of virtual protest (Medosch 2016). This adjustment to their endeavour came as a response to the intensive lobbying of the industry to strengthen policies around copyright protection in the digital realm. This implicitly changed their time-scope: from short-term thinking and immediate action, to a long-term commitment to establishing sustainable, free, and accessible alternatives. By developing, using, and promoting Free Open Source Software (FOSS), they intended to offer a substitute to the draconian copyright laws. These digital practices are inevitably grounded in the previous waves of Institutional Critique, denouncing

---

<sup>49</sup> Balász Bodó, a participant in the panel discussion “Blockchain and activism” in *White Papers on Dissent* at VAM, confirms this assertion, stating that the language of utopia was written into digital commons at the beginning of the 2000s.



the institutions of power from within. The development of a community is also fundamental as a way of acting in epistemic swarms to fight against control and revealing the oppression of the techno-political complex.

### **2.2.2 Shifting Authorship & Spectatorship.**

As the understanding of an artwork is transformed, authorship and spectatorship are too, as Claire Bishop explained in *Artificial Hells* (2012). The output of any social practice is kinship relations and collaborating formats. Naturally, this transformation is the result of the progressive dematerialisation and formal experimentation that started with the first wave of Institutional Critique and the coetaneous New Media Art. They are immaterial practices that can only be experienced first-hand and require long-term commitment.

In turn, the nature of the author is altered. While it had previously required a figure as the facilitator of an experience, for instance Fluxus scores or LeWitt's instructions, now, the author becomes a collaborator, as it happens in participatory projects, for instance. In turn, the role of the audience shifts: they turn into a co-producer of a collective experience. The goal of these projects is, therefore, to achieve a certain group dynamic, a social situation, a change of energy, a raised consciousness (Bishop 2012, p. 10). Socially engaged art procures, consequently, a site of collective action that reverberates with the reliance on the community in Gibson-Graham's diverse economic systems. As they argue, "in this space thus produced, we see opportunities for new economic becomings—sites where ethical decisions can be made, power can be negotiated and transformations forged" (2006, p. 77). Critical practices act similarly, which endows them with more than a critical voice, as they also have an empowering agency.

As the concept of authorship evolves, there are two concepts traditionally linked to art appreciation that are radically called into question: aesthetics and criticism. Critical practices repudiate aesthetics, as they were considered, according to Bishop, "merely visual and (at worst) an elitist's realm of unbridled seduction complicit with spectacle" (2012, p. 26). The halt on authorship also exempts these practices of art criticism, since they are assessed only in terms of a set of ethical precepts (Bishop 2012, p. 22). In this context, art institutions are

not at the centre of this artistic experience, but are instead relegated to a secondary position, as socially engaged art doesn't necessarily make use of the institutional context to function.

Digital socially engaged practices such as Tactical Media go a step further, “by establishing ersatz institutions, or mock institutions, with intentionally unstable public identities [...] they expressed their goal of establishing an entirely autonomous political cultural sphere” (Sholette 2017, p. 153). Therefore, Tactical Media can be rightly placed within art activism, as it aims at impacting society in a political way (Serafini, Holtaway, & Cossu 2017). Likewise, activist art accentuates a praxis built upon a collective experience, which takes an open-ended and process-oriented approach. As Serafini, Jessica Holtaway, and Alberto Cossu argue, these are “a way of creating radically new social paradigms” (2017, p. 5). However, these practices are not enclosed in any particular style and are “probably best defined in terms of its functions” (Lippard 1984, p. 342). Appropriately, though less frequently proposed, digital art can be a medium to sustain new forms of socially engaged art.

Fundamentally, the intention of social, participatory practices is to activate the audience “to emancipate them from the state of alienation induced by the dominant ideological order—be this consumer capitalism, totalitarian socialism, or military dictatorship” (Bishop 2012, p. 27)<sup>50</sup>. As a result, these polymorphic socially engaged processes have very diverse outcomes but share political resolution, often under the imaginary of the commons. Digital practices have clear advantages, such as its inherent immateriality, the adaptability of its potential physical translations<sup>51</sup>, and wide online reach and engagement.

Part II considers digital art beyond medium specificity, which is how it often appears in art historical readings. My goal is to position it as a socially engaged practice instead. In this way, I intend to ground blockchain social practice art within a genealogy of digital

---

<sup>50</sup> I will continue explaining this relation to activist art in Part III, connecting this approach with blockchain art

<sup>51</sup> Digital artists work directly with code, meaning that the outcome of their work could be an app or a website, for example. However, it is often the case that these digital native artworks are curated in traditional physical exhibitions. For them, these projects are translated into an installation or a video, for instance. Not being the primary outcome of the artwork makes them potentially changeable and adaptable to the circumstances of the exhibition. If we think again about the Forensis Architecture projects, they take different forms adjusted to the exhibition venue

critical practices. By expanding this lineage, I aim to respond to one of my research questions about the role of art crafting new utopias adapted to the new desires and goals of the post-digital society. To do so, I will now turn to a case study of *HyperReadings*, a digital and decentralised art project that generates a collective and non-hierarchical process of sharing and learning.

### 2.2.3 HyperReadings.

*HyperReadings* is an artistic project by Dockray, Forster, and Bavyka that was presented as part of my curatorial project *This Site Is under Revolution*, which was a Strategic Project during the 6th Moscow Biennale for Young Art at the Museum of Modern Art in Moscow (MMOMA) in the summer of 2018<sup>52</sup>. The project is a digitally distributed archival infrastructure for writing, sharing, navigating, and adapting reading lists. As such, it embodies a socially engaged practice, which uses the digital as a milieu to empower the user to share and enable a collective process of knowledge production and distribution. At MMOMA, it took the shape of open-source software, a reading group, an installation, and a series of workshops. As open-source software, *HyperReadings* was developed and maintained by Dockray and Forster, whilst Bavyka joined this informal and porous collaboration, contributing to the physical manifestation and communication of this largely intangible infrastructure. For the biennale, MMOMA became a node in the distributed infrastructure, a physical and digital host of *HyperReadings*.

*HyperReadings* provided computational resources in support of the broader P2P network, and physical space for collective sharing, reading, writing, and ultimately learning together. As Forster put it, “sharing what we read, what we want to read, and what we think other people should read becomes a form of peer-to-peer education, the propagation of informal and personal canons.” In this way, *HyperReadings* offered a physical and virtual space of co-learning employing the readings lists, which became aesthetic objects that both organise and produce knowledge. Formally, it was constituted by software that creates and

---

<sup>52</sup> I decided to ground this chapter on my own project because I could give a clear example of how it worked within my curatorial approach at large and how it functioned within the exhibition as a whole.

adapts reading lists, and an installation in which a series of discursive events took place. In both cases, the project was activated through its audience, who are co-producers of a collective experience through a digital app and/or workshops.

My exhibition *This site is under Revolution* at the Moscow Biennale for young art delved into the politics and poetics of digital resistance. As I wrote at the time:

To fight against the oppressive yet fluid and immaterial system, *This site is under Revolution* looks for tools of empowerment, mechanisms of distraction, and schemes to regain agency. It focuses on how artists disentangle the social, cultural, historical, gendered implications of identity in the post-digital society, and explores the virtual sphere as the terrain to trigger civil transgression. (Cueto 2018, p. 27)

Reading lists are being used as tools for contesting established patterns in public thinking, but also, importantly, for publicly making sense of our current times. In this context, *HyperReadings* became a subtle way to open a safe space in Moscow, where an audience could potentially express and share their opinions. Key examples to understand the relevance of reading lists today are, first, the *Baltimore Syllabus* (May 2015), which started on May 1, 2015 as a public file on Google Drive. In it, users wrote their recommendations under an explanation noting “it includes readings as reminders from Ferguson, context on the city and history of Baltimore, on riots and protest, on the Bigger Picture, movies, books, and news/memes/videos from Baltimore.” Second, the syllabus *Women and Gender Non-conforming People Writing about Tech* (September 2017), was a response to the compilation by the *Los Angeles Review of Books* titled *The Digital Revolution: Debating the Promise and Perils of the Internet and Algorithmic Lives in the Last Years of the Obama Administration*, which had only one chapter written by a woman. This collaboratively written online list was aimed at exposing lack of diversity and is composed of books by more than 300 women and gender non-conforming scholars, researchers, activists, writers, and speakers.

These reading lists were a format that triggered the project as a whole, offering a way to engage with local communities to share knowledge and open up conversation. The desire behind it was to establish a tacit form of resistance coming both from the audience and the

technology. In the case of *HyperReadings*, the audience as exchanging sources and opening up to new knowledge (potentially political). Moreover, using a decentralised protocol was both political and practical. As a decentralised infrastructure, it couldn't be tampered with or censored. Furthermore, due to its open-source nature, it embodied a commons-based economy, giving both programmers and end-users control over the software and, subsequently, over their devices.



Figure 3. Installation View at MMOMA

*HyperReadings* was inspired by the above-mentioned syllabi and their capacity to resist hegemonic paradigms and encourage collective action. Like Social Practice Art, it was conceived as a response to neoliberal policies, in particular to the collateral damage occasioned by knowledge enclosure.<sup>53</sup> In particular, the artists had in mind the availability of digital libraries and advocated for the survival of small archives and individual collections. Also, like critical art practices, the project focused on commoning strategies, which promoted self-organisation, social inclusion, and egalitarian participation. In them, care is taken to

<sup>53</sup> For more information on the topic see Riemer (2016).

balance power among participants and to broaden the areas of people's lives that are based on democratic self-management (Ryan 2013, p. 90).

*HyperReadings* is built upon Dat Protocol; like BitTorrent, for instance, Dat is a peer-to-peer protocol for syncing folders of data, which implies that it distributes libraries across computers. Dat Library sustains *HyperReadings*, and its goal is to support scientific knowledge in a decentralised manner to thus secure accessibility. The project implements reading lists or a structured set of pointers (a list, a syllabus, a bibliography, etc.) into one or more libraries.

When it was installed at MMOMA, *HyperReadings* also became a physical structure in the form of a reading room containing pin boards, printers, computers, and seats. This analogue version used the computers and printers to have the lists in-situ, the pin boards became the online dashboard, and the furniture worked as infrastructure to support the discursive events. During the month and a half of the biennale, there were eight sessions, which were sometimes led by the education department but were mostly organised by volunteers who answered an open call. Beyond these sessions, there were countless informal meetings between the volunteers and the visitors during opening hours, who worked on their reading lists and assisted others creating theirs, as well as helping to translate much material.



Figure 4 Exhibition View of HyperReadings at MMOMA (2018)

*HyperReadings* embodied the intentions of Social Practice Art. Formally, it emphasised the process over obtaining a clear outcome, and its purpose was to generate a community that could share knowledge in a commons-based structure. However, being a digital project has specific differences to and productive advantages over traditional socially engaged projects, which makes it responsive to the needs of today's society. Accordingly, it has a more complex structure that moves across realms to create a translocal community of participants. It also generates a resilient, decentralised infrastructure to share digital commons opposing any possible commercialisation. Bishop clarifies that "there is an emphasis on process over product—or, perhaps more accurately, on process as product—[which] is justified on the straightforward basis of inverting capitalism's predilection for the contrary" (2012, p. 19). Accordingly, the goal was to avoid a hierarchical experience of knowledge distribution; thus, in *HyperReadings*, in Bishop's terms, a "consensual collaboration is valued over artistic mastery and individualism, regardless of what the project sets out to do or actually achieves" (2012, p. 19).

The project's workings also reverberate with a community economy, as described by Gibson-Graham (2016). This is because it was conceived as a system ruled by non-market values, which generated a collective experience of cooperation that resisted the logic of capitalism. Conceptually, as critical practices, the sessions of *HyperReadings* mimicked the spirit of the commons, understood both as resources "shared by a group of people and a process by which the goods, either material or intellectual, are held and managed collectively." (Baxter & Ikoniadou 2014, p.6) *HyperReadings* offered a structure as both a virtual and physical environment where one could share knowledge. It overcomes the digital divide and, with it, surpasses the medium specificity that characterised new media practice. The project was also being maintained and (re)created by its users/producers, who adapted the infrastructure to their requirements and wishes. In this way, the project became a living entity, which survived through its community, as it produced something of collective value *with* the public, rather than *for* them.<sup>54</sup>

Bishop (2012) has emphasised the detachment of carefully crafted aesthetic experiences. This aspect was embodied in the physical installation of *HyperReadings*. The installation evolved together with the uses that the visitors gave to it: people took and left things, and the reading lists continuously grew. The project trespassed the boundaries of the digital infrastructure to become a live entity within the museum. The intention was for the audience to become involved in any way they wanted, denoting the importance of the *Being-With* that Gibson-Graham understand as the keystone to formulating a counter-hegemonic project of resistance. Accordingly, Forster said, "the infrastructure accommodates the needs and desires of new users/audiences/communities and allows them to enter and contort the technology to their uses. It is infinitely hospitable" (2018, personal communication). Forster also recalled librarian and mathematician R. R. Ranganathan's last *Law of Library Science* (1932), which referred to the library as a living organism. In this context, using reading lists offered a playful and productive context that could be infinitely adapted and reworked.

---

<sup>54</sup> This idea was later developed in relation to blockchain in *White Papers on Dissent*. All the speakers agreed that the success of a project is intrinsically related to the process of co-creation.





Figure 5 First workshop during the biennale, led by Benjamin Forster explaining the workings of DAT technology

The events were further testimony to this diversity and playfulness. For example, one of the sessions pivoted around the idea of *The Revolutionary* in relation to the manifesto *Slap in the Public Taste* (Burluk, Kruchenykh, Mayakovsky, & Khlebnikov 1917). To do so, they explored their poetical form in their revolutionary narrative and its emotional impact. Differently, in another session with a hands-on approach, Forster guided a workshop about the technology behind *HyperReadings*.

The diversity of the topics in the project generated a collective process of co-learning that attracted a very diverse audience, who were actively involved organising different parts of the workshops. The app was the digital structure that put in motion the process of commoning inside and outside. The notion of authorship was evidently called into question, since the artists specifically wanted to create a structure of collaboration that was activated by the audience. They created the tools that were put to use by the audience, who took complete control of the development of the workshops.



Figure 6. This is a one of the self-initiated workshop.

This transformation of roles is related to the dematerialisation of the previous waves of Institutional Critique and is tightly related to the immateriality of social practices. But, most importantly, it connects the latter with the desire to forge a community of agents and it develops a sense of kinship, which stretched among all participating: audience, programmers, reading group contributors, and leaders. This system of cooperation replicated the code and generated a decentralised, non-hierarchical approach, where all the nodes could participate as equals in this mode of informal education. The digital project aroused a strong sense of community thanks to the transversal collaborations, openness towards participation, and broad thematic approach. *HyperReadings* managed to convey a system of knowledge exchange that functioned like a commons economy, where “contributors create shared value through open contributory systems, govern the work through participatory practices, and create shared resources that can, in turn, be used in new iterations” (Bauwens et al. 2019, p. 6).

Ultimately, these gestures endowed the project with the artistic heteronomy that Gaiger anticipated (2009). *HyperReadings* encouraged a commons-based knowledge economy, along with a critique of the institutions of power, like the second wave of Institutional Critique. Nonetheless, it used digital critical vernacular to adapt its criticism to issues of knowledge enclosure by neoliberal policies that directly affect dissemination in the post-digital society.

Finally, if we consider the Russian context and frequent state censorship, then it is clear that the project gained political weight. However, since it provided a structure of collective and open knowledge sharing, it also experienced a backlash from more conservative visitors. Most relevantly, a group of people came to the installation and moved all the reading lists and materials that were pinned on the boards. These had been previously attached in a random order, as each new list was attached to the old ones, but this group reorganised them into a large orthodox cross. Far from becoming a worrisome incident, this was in fact a symptom of the work properly functioning<sup>55</sup>.

---

<sup>55</sup> Although the project worked during the biennale, as soon as it ended, the community around it disappeared. The project has been installed later on in other venues with better results on the long run.



Figure 7. View of one volunteer-led workshops.

In summary, *HyperReadings* did manage to shape a strong and engaged community around it, and successfully generated an experience with a transformative capacity. This is in line with Bishop's claim that the goal of socially engaged practices is "to achieve a certain group dynamic, a social situation, a change of energy, a raised consciousness" (2012, p. 10). Commoning practices come to be an expression of social power; they expose the capacity to develop critical voices, facilitate active forms of citizenship (Levine 2007), and create a sense of belonging (Thrift 2006). In a similar fashion, *HyperReadings* created value for a community of participants "through which P2P infrastructures allow individuals to communicate, self-organise and, ultimately, co-create non-rivalrous use-value, in the form of digital commons of knowledge" (Bauwens et al. 2019, p. 11). Despite the immaterial nature of the project and its complexities due to its technical characteristics, *HyperReadings* shared the same goals and outputs as other social practices.



### 2.2.4 *HyperReadings* As A Digital Social Practice

To summarise the above case study on *HyperReadings*, we can say that it is a distributed digital structure on Dat protocol that functions as a tool for knowledge commoning. It exemplifies how digital art can become socially engaged. Intrinsically political, the project offers an autonomous space that overcomes the boundaries of the museum, spreading across realms, able to navigate the expanded terrain of the struggle of the post-digital society.

More widely, Bishop argues that social practices of this type create “an independent zone, free from the pressures of accountability, institutional bureaucracy and the rigours of specialisation” (2012, p. 26). In the same way, digital social practices bypass the institutional system in two ways: by moving flawlessly between the digital and physical realms, and by surpassing its system of valorisation and commodification. Projects like *HyperReadings* manage to avoid the market cooption suffered by the first wave of Institutional Critique, while also engaging and tacitly revealing the oppressive structures of the techno-political complex, and calling into question the limits of digital ownership.

Inevitably, these digital social practices are responses to the struggles of neoliberalism and tap into digital commoning as a way of challenging these capitalocentric economic systems. By using Free/Libre Software, the artists were able to engage with a community united by their shared project of resistance. *HyperReadings* is an open-source code, always available and reproducible, which empowers the audience in the process of co-creation. As Lippard (1984) and Groys (2014) acknowledge, activist art takes action, and likewise, *HyperReadings* offers a real alternative education, using a P2P education model. Moreover, the technology manages to find a way to surpasses stringent neoliberal copyright laws, facilitating an infrastructure that can disseminate texts freely, acting as the ground for P2P learning environment. This artwork proposes a different form of instituting alternative forms of education, one using digital tools as the infrastructure, instead of the museum or the university. As such, it follows the legacy of projects like Joseph Beuys’s Free International University for Creativity and Interdisciplinary Research (FIU), established in the early 1970s. Art historian Christa-Maria Lerm Hayes explains that “In setting up the FIU, by contrast, he

[Joseph Beuys] involved others far more actively, and this paper will draw out some of the characteristics of this collaborative approach and how they have been picked up and used in subsequent artists' university projects." (Lerm Hayes 2019 par:7)<sup>56</sup>. Likewise, this digital project combines art, art history and activism. And, functions like any critical practice. It aimed to provide an autonomous structure to establish a communal experience of knowledge creation and dissemination. The project required long-term and first-hand engagement to facilitate a collective experience, where the participants became co-authors in a process of transversal collaboration. The digital infrastructure became a tool that is put to use by a network of online and offline co-creators involved in a commoning process. In this way, HyperReadings, like any socially engaged practice, also aimed to become a path to emancipation.

### 2.3 Social Blockchain Practice Art

Recently, blockchain narratives have moved from obscure techno-economic circles to the mainstream art market after an NFT was sold at Christie's for \$69,346,250 USD.<sup>57</sup> A Non-Fungible-Token (NFT) refers, in this context, to an artwork minted on a blockchain. This record price could have potentially sparked off a much more nuanced conversation but, nevertheless, within mainstream discourse, NFTs seem to be understood only as commodities that happen to be on a blockchain. It is still rare finding artists working in this medium neither engage with the affordances of the technology<sup>58</sup>—for example, implementing metadata that could work across platforms—nor explore new ways of exhibition that go beyond static digital display on a platform such a Cryptovoxels, for instance. The lack of

---

<sup>56</sup> In the same paper, *Beuys's Legacy in Artist-led University Projects*, she points out Lutticken's Para-Institutions (2015) and Sholette's analysis of what he later calls Ersatz-Institutions. I will talk about these institutional practices later on, when mentioning how blockchain artists constructing DAOs and DApps continue this modus operandi in their interpretation of blockchain.

<sup>57</sup> See <https://www.christies.com/features/Monumental-collage-by-Beeple-is-first-purely-digital-artwork-NFT-to-come-to-auction-11510-7.aspx>

<sup>58</sup> In the forthcoming *NFT Anthology* published by Taschen, I wrote a piece precisely addressing the artist collective Keiken, whose work engages with NFTs as a tool for re-thinking exchange and utilises metaverses as spaces for struggle instead of escapism.

involvement with the blockchain vernacular drastically reduces the critical capacity of NFTs, as they replicate traditional art market scarcity mechanisms usually appreciated by consumers.

In this chapter, I am not focusing on any type of blockchain artistic product, such as NFTs, I am concentrating in the projects that think *through* the technology to create a community based on diverse values, and they are dedicated to social production and reproduction. In focusing on this, I intend to answer my research question about the role of art creating the utopias of today by considering the potential of blockchain artistic projects.

The following subsections are built upon the knowledge gathered in Part I and are expanded by an art historical perspective. Therefore, it provides a new lineage that helps us understand the social context and formal experimentation as a continuation of the avant-garde's legacy, together with the collective experience described as a Social Sculpture by Joseph Beuys. These artistic practices using blockchain are grounded in the same desires and formats of projects like *HyperReadings*, and offer a new terrain of exploration that continues the project's Institutional Critique and offers a new medium for socially engaged art.

Mouffe argues that “artistic practices play a role in the constitution and maintenance of a given symbolic order, or in challenging it, and this is why they necessarily have a political dimension” (2013, p. 91). Digital art is not exempt from this, and its political interests are concerned, like other new media practices, with the techno-cultural complex. Today, it is often represented in terms of algorithms and their entwinement with our society, with collateral fears related to potential shifts in our identity, our reality, and socio-political relations (De Vries 2019, p. 16). These digital artworks are grounded on long investigations that question or problematise the ripple effects of neoliberalism in the post-digital realm and create new forms of engagement that overcome the physical/virtual dichotomy. This involvement with a different set of structures of power is, thus, more accurately reactive to the concerns of the post-digital society and its hegemonic systems of representation and reproduction.

Artists from different perspectives and disciplines imagine, represent, and narrativize digital tools, whether by using them to explore influence or through their political potential.

These reflections are close to artistic activism, which Marchart sees as “counter hegemonic moves against the capitalist appropriation of aesthetics and its goal of securing and expanding the valorisation process” (2019, p. 24). The goal is to reveal the inner workings of the digital world and the contemporary entanglements of technology, economy, and geopolitics, to make them accessible to an audience, and then, thus, potentially contestable.

### 2.3.1 As Agonistic Critical Art.

Art using blockchains, like any other digital art form, is both a symptom of and an agent against the techno-political context, responsive to a changed communication environment and technological development, and the re-politicisation of the mediascape. Likewise, these artworks are a reaction to the evolution of digital technologies and prompt a different type of inquiry to other types of political art, since the history of technology and media sciences perform a similar role in the making and reception (Paul 2006, p. 1). Although this is applicable to any blockchain project, I will here focus exclusively on the various practices that think *through* the technology to propose counter-hegemonic projects and are capable of performing pluralistic agonism. They do not necessarily utilise the technology to create a commodifiable output, such as NFTs<sup>59</sup>; rather, these works use the technology as a tool for radical imagination, which removes the emphasis from the final work and highlights the ongoing artistic process and the relevance of the collaborative making. These practices, as opposed to crypto assets, convey speculative moments of world-making, empowering multilocal and multidisciplinary communities and generating new systems of cooperation. As explained in Part I, I call them Social Blockchain Practice Art.

These projects are *written* in digital critical vernacular and go a step further in their desire for emancipation because they provide an independent, resilient, and adaptable digital structure to work within a community united by shared values and political awareness. They put in motion blockchain as an Institutional Technology (de Fillippi & Wright 2018). These artistic experimentations achieve what Gregory Sholette calls Critical Autonomy, a self-validating mode of cultural production and distribution (2017, p. 45). These art projects cannot

---

<sup>59</sup> See <https://flash---art.com/2021/02/episode-v-towards-a-new-ecology-of-crypto-art/> and <https://www.nytimes.com/2021/02/24/arts/design/christies-beeples-auction-blockchain-art.html>



be “unambiguously defined as art” (Holmes 2009, p. 58), and are created as a joint effort between multidisciplinary players in cooperative systems that evoke P2P collaboration (Bauwens et al. 2019, p. 1). The output is not primordial, the process of collaboration between agents on a transnational and transdisciplinary manner is of foremost importance. The technology is understood only as a tool that makes possible an act of world-building that entails a new type of participation. These projects relate to activist art, as it was previously explained, they also emphasise a praxis built upon a collective experience, and an open-ended and process-oriented approach, dedicated to fostering “radically new social paradigms” (Serafini et al. 2017, p. 5).

Above all, though, these artistic projects emphasise the *making* of a community. This approach reverberates with the goal of social practice art, which stimulate cooperation to counterbalance an individualising neoliberal impetus (Billing et al. 2007; Bishop 2012; Stimson & Sholette 2007). Naturally, their critical autonomy enables them to propose alternatives to circumvent algorithmic control, political fragmentation, and increasing hyperfinancialisation. On that account, they act as digital art: they are responsive and relevant investigations reactive to the conditions of post-digital societies. The affordances of the technology equip them with an apparatus that has the ability to organise a political community. As a result, these projects offer a new framework that expands their criticality and stimulates a new form of engagement.

The analytical dimension of agonistic critical art, Mouffe clarifies, “consists in making visible what the dominant consensus tends to obscure and obliterate, in giving voice to all those who are silenced within the framework of the existing hegemony” (2005, p. 93). Owing to its decentralised and dis-intermediated governance system, art using blockchains overcomes centralised coercion and provides a system with horizontal hierarchies and a distributed coordination mechanism that endows individuals with higher stakes of agency and self-determination. These art projects can, as a result, coordinate epistemic crowds embedding their values and social goals into the code, and, in this way, create an independent network of algorithmic resistance. These alternative proposals reveal the shortcomings of its opposite other and assert the values that were previously suppressed. For example, by visualising the interdependencies in a diverse economic system (Gibson-Graham 2006) at the

level of code. Like the second wave of Institutional Critique, these artists concentrate their commentary on how hierarchies of power are represented and unveil the dominant consensus by confronting it with a non-capitalist counter-hegemonic project. Due to their formal experimentation, participation, and collaboration, they call into question the authority of the institution as a system of valorisation through an analysis that surpasses the art world and a type of engagement that reaches beyond museum goers.

Furthermore, the affordances of the technology facilitate an apparatus that promotes alternative socio-economical structures, thanks to the provision of automated and trustless transactions. Correspondingly, they expand the project of Institutional Critique, as their analysis of hegemonic practices is better tailored to the post-digital society, and they propose and experiment with potential alternatives to subvert those orders. Utilising digital tokens, they can accordingly programme and adapt their social and economic relations, which recasts blockchain into a Situated Technology (Bell et al. 2003) and, reciprocally, transforms them into a new form of socially engaged work.

Social Practice Art intends to encourage participation and engagement with specific communities to achieve change on a local scale (Serafini 2018, p. 2). These art projects are committed to the commentary of structures of power like Institutional Critique, but they specially react against the effects of late capitalism (Bishop 2012). The role of the community is at the core of these projects. Gibson-Graham consider this *Being-with* as foundational in the development of “the counter-hegemonic project of ‘differently politicising’ the economy” (2006, p. 84). Consequently, Social Blockchain Practice Art is a socially engaged art because it organises a trans-local community in a non-capitalocentric manner, emphasising the relevance of social surplus in the endeavour. The goal is to trigger social change and counterbalance the individualism of neoliberal forces, the passivity of the audience, and the disempowerment of non-authors (Billing et al. 2007; Bishop 2012; Goriunova 2016; Stimson & Sholette 2007). Concomitant to the development of a community, there is a collateral process of construction of political identities, which is, as Mouffe reminds us, cemented on the role of affects (2013, p. 29).

By constructing collective forms of identification, social practice art stimulate emotional responses, which entail a process of agonistic confrontation between old and new subjectivities. Political theorist Antonio Gramsci (2010) asserted the relevance of cultural and artistic practices in the diffusion and formation of common sense, which establishes a particular conception of the world and defines a specific understanding of reality. Social Blockchain Practice Art can, likewise, exert this power by making it possible for a delocalised community to participate in a project of counter-hegemony and, in this way, engage on an affective level. The potential of a commitment with alternative subjectivities is, precisely, what gives these artworks their political agency.

Like critical digital art, artists working with blockchains problematise the reproduction of the symbolic order of neoliberalism in the post-digital realm and create new forms of engagement that overcome the borders between the physical and the virtual, generating a community of likeminded collaborators with the same political outlook. The political agency lies in its nuanced form of Institutional Critique and the novel form of organising. As I later explain, Social Blockchain Practice Art is rooted in the avant-garde tradition and shares its social potential with Beuys's notion of Social Sculpture. However, these practices are more attuned to the effects of neoliberalism in our post-digital society, and are more analytical towards hegemonic practices<sup>60</sup>. They convey counter-hegemonic proposals that challenge the current sedimented practices by composing new subjectivities that aim to dismantle this given hegemony. They are capable of continuing the legacy of Institutional Critique and also expand critical practices towards the possibilities of new post-digital realms by thinking *through* the affordances of this still nascent technology. Not only do they make possible an agonistic confrontation by effectively putting forward alternative (counter-hegemonic) systems, they come to expose the political potential of art in post-digital societies.

---

<sup>60</sup> And, thus, better fitted to also generating new forms of utopia that respond to today's techno social complex.

### 2.3.2 The Legacy Of The Avant-Garde

“We are the new people of a new life” (Burliuk et al. 1988/1912) proclaimed the Russian Cubo-Futurist’s manifesto in 1912. These utopian statements were often present in manifestos or programmatic texts of the avant-garde. However, differently to earlier utopian forms, like More’s *Utopia* (1516), the avant-garde wasn’t based on progress and continuity, but on a clear rupture with the past. The future becomes, as art historians David Ayers and Benedikt Hjartarson (2015, p. 3) argue, an open site for utopian projects abandoning its neutral position, where the future was an empty space for the unfolding of time. Historian Reinhart Koseleck locates this shift in the eighteenth century, as histories no longer “take place in time, but through time” (Koseleck 2002, p. 165). In the political arena, this transformation leads to new revolutionary or totalitarian states, but in the aesthetic realm, the future and its utopian outlook is associated with “visions of a new social order rooted in the aesthetic imagination and with the role of the artist as visionary” (Ayers & Hjartarson 2015, p. 3).

Social Blockchain Practice Art has inadvertently inherited many features that have come to characterise the traditional avant-garde: it is praxis-oriented, focuses on collectivity to overcome capitalism, and it is tinted with the hope of utopia. Furthermore, its subversive spirit and talent for defiance acts similarly to the critical power of the historical avant-garde. As art historian Grant Kester states, the avant-garde’s “task is to transgress existing categories of thought, action, and creativity, to constantly challenge fixed boundaries and identities” (Kester 2011, p. 20). Correspondingly, Social Blockchain Practice Art seeks to exercise new social paradigms with post-capitalist points of identification that test conventions within art, technology, and society alike.

### *Utopianism And The Avant-Garde*

“Utopia as a form is not the representation of radical alternatives; it is simply the imperative to imagine them,” asserts Frederic Jameson (2005, p. xii). Utopia is, thus, a method, which a multitude of artistic proposals put to work to depict new futures. The still-experimental nature of blockchain endows the art forms using the technology with an undeniable agency in

its future development; specifically, by influencing its social uses and by shaping new living options and questioning previous ones. These aesthetic experimentations come to represent futures that have not yet been co-opted by technological monopolies, and they help to envision new emancipatory strategies and push boundaries towards those futures. This lingering utopian sentiment accompanies many projects in blockchain, as it did for the avant-garde.

Considering the philosophical question related to this connection, philosopher Ernst Bloch includes works of art and culture within his encompassing definition of utopia, since they hold a future-oriented function. Decades later, the philosopher Theodor Adorno (1997) revisited these ideas, re-considering how art must somehow allow utopian hopes, although without accommodating them to the present. Art and utopia are interwoven practices and, naturally, these ideas are also present in contemporary art forms using blockchain.

The avant-garde's driving force was the construction of a new society, culture, and humanity through aesthetic experiments and investigations (Ayers & Hjartarson 2015, p. 7). The utopianism of these projects was driven by a praxis-oriented approach, as also happens in the case of Social Blockchain Practice Art. For example, Black Swan, an art collective who participated in *White Papers on Dissent*, aims to disrupt the art world economy, making artists the key holders of the art world to enable more solidarity between other interdependent artworks. Currently, they are in the process of building a Dapp<sup>61</sup> that could allocate sources to different artists collectives. In this way, through this blockchain tool, the intention is to capture the value produced by artists and creative processes and turn it into a sustainable economic process for artists. They developed a Hackathon Dinner for the project I curated at Van Abbemuseum, which focuses on alternative notions of value related to blockchain<sup>62</sup>.

As I noted above, Paul has explained how the layer of code of digital art, Fluxus, and Dada are connected conceptually, as they are based on the execution of rules (2006, p. 2).

---

<sup>61</sup> This is an app built in blockchain.

<sup>62</sup> In episode 3 of the podcast *White Papers on Dissent*, one can hear the outcomes and experiences of the hackathon. This collective experience of sharing, organising and disseminating value systems provided a unique experience to the audience and is a **G**ood example of how **S**ocial **B**lockchain **P**ractice **A**rt can work in institutional level. Moreover, these ideas were further explained in the artist talk hosted at VAM on October 19, 2021.

However, whereas the avant-garde focused its investigations on the medium,<sup>63</sup> artists working with blockchains emphasise experimentation with distribution networks. They concentrate on how their artworks can provide new forms of interaction and connection between different nodes, agents, and access points, and how they can influence their behaviour and expectations towards the future. They thus maintain the same spirit: the desire for rupture and the craving for a new society. Yet, the tactics deployed by the traditional avant-garde differ, as blockchain artists emphasise experimentation with chains of distribution as part of the artistic medium.

### *Art and life: New communities*

The notion of collectivity was always present in avant-garde practice. Yet, as curator Gavin Grindon (2011, pp. 79–96) explains, it had entirely unique outputs. Whilst the Russian Constructivists became official engineers of the Soviet Union<sup>64</sup>, the Dadaists and Surrealists strived to renew art outside the boundaries of the institution, abandoning waged labour to encourage new forms of collective existence (Grindon 2011, pp. 79–96). The intention was nonetheless the same for both: to meld the realms of art and life into one that would make the bourgeois institution of art, considered the paradigm of autonomy, disappear. The avant-garde was, consequently, stressing the relation between collectivity with struggle, opposing the individualised realm of aesthetic appreciation represented by art institutions (Burger 1984). They managed, as Massimiliano Mollona suggests, to “at least suspend the logic of capitalism” and inhabit a grey zone that “valorised instead the speculative, conceptual and immaterial labour” (2021, p. 30). This value emerged performatively, relying on contact between the artwork and the public (Roberts 2007).

---

<sup>63</sup> As I explained in relation to Fluxus in Part II.

<sup>64</sup> See the work of Ellen Rутten at Uva. For example, the symposium she led at Stedelijk Museum (20/5/2021) titled *The Avant-Garde Then & Now* part of the first-year seminar ‘Russia and Eastern Europe 1900-1950: Culture as Politics,’ co-hosted by the University of Amsterdam’s department of Russian & Slavic Studies and Stedelijk Museum. [give a bit more precision]

In the case of Social Blockchain Practice Art, the artist, who tends to work in collectives due to the projects' complexity, strives to foster the *commonality of being* of Nancy (1991). Their works execute a type of world-making organised through social surplus, moving flawlessly between realms, producing hand-on games, workshops, and Live Action Role Playing (LARP) that come to enact their digital counterpart. They blur the distinction between life and art to propose alternative social arrangements that question the logic of capitalism. For example, artist Yin Aiwen and her project *ReUnion Network* (2019), which I return to in Part IV, functions as a game using LARP to practice a society based on long-term contracts of care using an app on blockchain. In this way, the participants can experience the capacity of blockchain to implicitly re-address power relations (Rozas, Tenorio-Fornés, Díaz-Molina, & Hassan 2018).

In this way, then, Social Blockchain Practice Art holds the same impulse that joins art and life, following the lineage from the modernist avant-garde to Fluxus, through to ACT UP and Occupy (McKee 2017, p. 46). Art historians John Beck and Ryan Bishop assert that “the fusion of art and technology [...] was bound up with the avant-garde’s broader utopian challenge to the compartmentalised and administered lifeworld of modernity” (Beck & Bishop 2020, p. VII). Artists experimenting with blockchains continue the same desire and, their works melt the boundaries between life and art to explore new forms of living and being in the world. Fluxus famously led a series of interdisciplinary projects with different US scientific, technological, and industrial innovation companies and universities. The investigations led to the dissolution of the author and rise of the spectator. Collaterally, these experiences attempted to “initiate new modes of inquiry unfettered by conventional distinctions based on professional loyalties, prejudices, or habits of mind” (Beck & Bishop 2020, p. VII). These experiments dim the borders between art and life to unleash creativity from both sides: scientists and artists.

The utopian challenge to the existing state of affairs re-emerges in consecutive timeframes, experimenting with formats and mediums and, now, with distribution channels. Social Blockchain Practice Art is, I argue, the newest embodiment of the longing for subversion of the avant-garde. Using post-capitalist vocabularies, these collectivising praxis-

oriented artworks convey alternative lexicons that speak of hope using non-capitalocentric values.

### **2.3.3 As Social Sculpture**

Following in the steps of the avant-garde and Fluxus, Beuys understood Social Sculpture as the momentum of universal connectivity between natural materials, artefacts, humans, and even animals and plants (1992, p. 45). This resonates with Social Blockchain Practice Art, in which the technology and users are enmeshed, composing what Bruno Latour (2005) called socio-technical assemblages. Human and non-human agents are united in the creation of a community that responds to the current hyperfinancialization.

Again, then, collectivity and hope, features of the avant-garde, resurge in Beuys and are also present in Social Blockchain Practice Art. These structures generate kinship relations between the participants through a collective process of knowledge production and dissemination. As Beuys famously stated, everybody is an artist, meaning that life and art were not apart but intrinsically connected. The productive fluidity of Beuys's concept of Social Sculpture presents a valuable access point to approach the nature of Social Blockchain Practice Art. To unpack how Beuys's ideas relate to these new practices, I will give an overview to contextualise his practice, which I will then analyse in connection with a particular work, *Crypto-Knitting-Circles* by Aillie Rutherford (2020).

### ***Beuys's Social Sculpture***

As curator and long-term collaborator Caroline Tisdall explains, for Beuys, art included the entire process of living, such as thoughts, actions, and dialogue, as well as objects, and, hence, it could be enacted by all people (1979, p. 7). Beuys was influenced by Fluxus and the avant-garde: on the one hand, Fluxus bypassed the art institution with event-based practices that activated viewers; on the other, the avant-garde succeeded in overcoming the regulation of bourgeois state institutions and in lifting limitations on their creativity, opening up to all images and forms (Kleinmichel 2019, p. 220). Therefore, Beuys theorised sculpture as a changing principle, or a thrust of energy that could reshape society (Jordan 2013, p. 147).



The first manifestation of Beuys's concept of Social Sculpture took place during Documenta in 1972, where he showed *Office for Direct Democracy*. This was set up as an office where Beuys and two assistants discussed, with whomever would come, the possibility of average people initiating public policy. Beuys believed that Social Sculpture could "mould and shape the world in which we live" (2004, p. 9) and, hence, affect social change. Lerm Hayes also points out the repercussions in forms alternative education lead by artist that continue the legacy of projects like Joseph Beuys's Free International University for Creativity and Interdisciplinary Research (FIU) (Lerm Hayes 2019). And, thus how these projects unite art history, contemporary art and activism.

There is thus an underlying political and utilitarian impulse in Beuys's practice. Interestingly, Beuys cited Wilhelm Lehmbruck as one of his influences because he succeeded in constructing mental sculptures that "listen to their beholders" (Beuys 2006, p. 17). This idea connects with the concept of Radical Imagination by Cornelius Castoriadis (1997), which I will develop further in Part III. Radical Imagination produces a type of image that precedes a thought. They are acoustic images of a word and point out radical imaginaries. Therefore, the radical power of art is related to the formation of mental sculpture or an acoustic image of a world. This transformative possibility through art is a fundamental feature to understand Beuys's work.

In his lecture "The Society as Artwork," Beuys (1967) suggested replacing modern society with "a pure form of a self-organised social organism, as it will come to life in the future" (Beuys 2004). This prefigurative inspiration comes from a firm belief in self-determination, which translated into a commitment with direct democracy (Beuys 1970). Social Sculpture has, therefore, an active nature. It functions as an active space, "as a social centre, as a laboratory of the communal and a site for aesthetic experiments" (Richter & Birchall 2015, p. 2). In it, actions and demonstrations could be adapted and changed (Jordan 2013, p. 146). The audience, likewise, become active subjects, not in the sense of interactive art but as collaborators in the process of meaning-making through collective responsibility (Jordan 2013, p. 146). Traditional notions of authorship and spectatorship are, consequently, challenged.

### **Crypto-Knitting-Circles: A Social Sculpture Using Blockchain**

*Crypto-Knitting-Circles* by Aillie Rutherford (2020) investigates and puts into practice potential blockchain applications for feminist and community currencies. The artists tested different uses of the affordances in the feminist community exchange space, *The Swap Market in Govanhill*, Glasgow (UK). *Crypto-Knitting-Circles* was a particular set of workshops developed with the community, to make visible the workings of the technology within the existing Swap Market. As a social sculpture, *Crypto-Knitting-Circles* dissolves the boundaries between life and art, implementing blockchain functionalities in a community that shaped the *People's Bank of Govanhill*, which is a non-monetary trading market. It was a space for swapping and sharing resources without the need for money, meaning that it facilitates exchange of different services, like piano classes, for a community currency, which could be traded for other resources offered in the market. The goal was to put feminist economics<sup>65</sup> into practice in a local community.

Needless to say, the work needs an active audience engaged in the process of exchange of goods and involved in its continuation, either by supplying goods or drawing new participants. Unlike Bishop's (2012) criticism of Relational Aesthetics, here there are neither opportunities for networking, nor moments of togetherness among those already included in the art world. Rather, they are inclusive experiences working on the outskirts of the art institution, deepening the project of Institutional Critique.

The workshops took place in the space used for the market, and involved many of the its users. They were dedicated to representing how blockchain works with very accessible materials, such as wool and threads as a way of representing the networks created by blockchains. Interestingly, although the workshops were useful representations, the people organising them realised that the technology created a too restricted and inflexible structure for the day-to-day practice in the market, and they abandoned the idea of using blockchain for their routine activities<sup>66</sup>. However, I believe that this is a good example, as it manages to

---

<sup>65</sup> This work is profoundly influenced by the work of J.K. Gibson-Graham, with whom the artist had frequent contact. Even so that she did the illustration of the cover of the new manual of Community Economies edited by Katherine Gibson in 2021.

<sup>66</sup> Allie Rutherford talked about this in the podcast, where she described her frustrations trying to implement the technology and the alternative they created to trace the interdependencies within communities, called String Figures, which was used in her workshop (it will be explained in Part IV)

embody this para-institutionalism described in Beuys's notion of Social Sculpture. As Grant Kester anticipated, it forecasts a "similar orientation towards para-institutional practice in contemporary socially engaged art" (Kester 2019, p. 87).

In the same vein, social blockchain art operates comparably to a Mock-Institution (Sholette 2015, p. 1) because it reproduces many of the features of a traditional institution by using technology. Intrinsically, these projects not only represent non-compliance with the networks of power, they advocate for self-administration. They introduce an antagonistic discourse, which, consequently, positions them even further from Relational Aesthetics, as Bishop's (2012) comment above would indicate. As with Beuys's oeuvre, the "creative imperative addressed the possibility of humans shaping the living environment—in terms of freedom, self-determination and a kind of post-materialistic economy" (van den Berg 2019, p. 34). Social Blockchain Practice Art uses creativity and imagination, blending art and life to propose an alternative way of living, supported by cooperating agents in a non-hierarchical manner. Acting likewise, Crypto-Knitting-Circles is an invitation where others could participate in the reformulation of the world in non-capitalocentric terms.

## 2.4 Conclusion

Social Blockchain Practice Art presents a new medium of engagement in social practice. It comes to reinforce action-oriented art and it is more than just the continuation of a lineage composed of recurrent "-isms." This process is political and holds a symbolic power, since a community (radically) imagines their social existence based on a complete transformation and, collaterally, debates the legitimacy of the previous imaginary by challenging it with their own. These moments of world-building enact the same utopian longing, desire for rupture, and craving for a new society of the avant-garde. Yet, here, they emerge by means of experimentation with distribution channels. In Beuys's terminology, they convey an expanded notion of art, dissolving the spheres of art and other human activities. Social Blockchain Practice Art enacts, through direct action, the power of creativity to shape new living environments that give rise to today's utopias.

Social Blockchain Practice Art challenges, like digital art, classic models of display, mediation, and reproduction of traditional art. In conjunction, it encourages expanded versions of spectatorship, production, and collaboration, as did Social Sculptures. The

critique is strengthened because it can circumvent the art process of valorisation and commodification, since these projects are more independent of the existing networks (Expósito 2009, p. 142; Goriunova 2016, p. 303; Paul 2006, p. 6). Furthermore, Social Blockchain Practice Art is, like the critical digital artworks, grounded on long investigations that inquire into the repercussions of neoliberalism in the post-digital realm, and respond with new forms of engagement that overcome the physical/virtual dichotomy. As a result, they enhance the project of Institutional Critique and provide a new medium for social practice.

Digital art at large is nested in different constellations of agents and powers, avoiding the misuses of socially engaged art at museums, and the over-institutionalisation of critique. Its nature questions the traditional structures of the art system, as it calls into question conventional methods of ownership, interaction, distribution, and participation. By minimising their dependence, they also hold a new sense of agency and foster new manners of engagement. They expand the notion of spectatorship (Paul 2006) and dismantle authorship as a sole process (Holmes 2009). Transformation occurs as a double process that involves the agents cooperating in the development and the participating audience because of their political engagement (Holmes 2009, p. 59). These conditions stimulate new forms of interaction both inside the practice and with the art system that, consequently, exceed museological rationale. Digital art thereby confronts the very nature of these institutions at large, raising questions as to their function in terms of display, mediation, and reproduction.

In particular, social digital practices share their immateriality, adaptability of physical compositions, and wide online reach, making them more independent from the constraints of art institutions. They are also concerned with fostering social change (Groys 2013; Lippard 2012) and offer alternatives to the systems of algorithmic oppression. Socially engaged digital artworks emphasise a communal experience that transforms the participants into co-authors in a process of transversal and transnational, on- and offline collaboration. They embody the same systemic form of critique, often involving the politics of digital commons. Differently to Institutional Critique, they share the same focus as social practices: the creation of a community as a response to neoliberal policies (Bishop 2012; Lind 2010; Lütticken

2017; Sholette 2017). The on- and offline cooperation of these participatory digital artworks is, hence, a political gesture, which sets them apart from Relational Aesthetics.

Part II analysed the critical potential of digital art from the angles of Institutional Critique and Social Practice Art, leaving aside the more traditional investigations related to the aesthetics of new media. Both frameworks coincide in the enhanced criticality endowed to digital art thanks to their independence from the art systems of valorisation and their success overcoming its commodification. Moreover, because of their techno-cultural complex awareness, they can reach beyond the museum and problematise the power structures and oppression of post-digital societies at large. Consequently, digital art exercises a richer form of Institutional Critique and provides a new medium for social practices that fosters a wider sense of post-digital community. The critical potential of digital critical practices resides in their new ways of engaging with our contemporary algorithmic reality, making social practice more aware and attuned to the effects and desires of a post-digital society. Likewise, Social Blockchain Practice Art embodies the same characteristics but expands the forms of collaboration and offers an experimental take on the technology. These practices make possible a type of commons-oriented social coordination that allocates worth to social surplus instead of accumulation of capital. The creativity to adapt its affordances allows its practitioners to convey their own version of utopia.

### **Part III: New Imaginaries in Social Blockchain Practice Art**

“Cracks are always questions, not answers,” says philosopher John Holloway (2010, p. 20).

A crack is created after a refusal and, for him, can be filled with the unfolding power of dignity. This post-refusal void becomes a threshold for a counter-world with new outlooks and different expressions, along with the duty and requirement to strengthen our capacities.

“Although a crack should not be seen as a means to an end, there is always an insufficiency about it, an incompleteness, a restlessness. A crack is not a step on the path to revolution, but is an opening outwards” (Holloway 2010, p.35). Blockchain, similarly, holds the intrinsic power to question the very notions on which networks of power rest and, with it, unfolds a liminal space of possibility.

Parts I and II explained the potential of blockchain, not as immanently revolutionary but as an opening outwards to a new social and political reality grounded on non-capitalocentric values. Blockchain is a coordinating mechanism that allows us to envisage the world otherwise. Admittedly, I am not writing about all projects using blockchain; rather, I am focusing on those dedicated to social production and reproduction. These types of proposals use the technology as a tool for radical imagination, since a community can collectively formulate their own utopia, and the technology can granularly define a governance mechanism according to its collective values and shared goals. Blockchain can compose a socio-political structure providing autonomous spaces for new futures, which can be enacted thanks to the plasticity of its affordances. A social structure using blockchain can consequently prefigure those utopian yearnings of the community that it creates.

Part III of this study is therefore dedicated to understanding blockchain as a tool for radical imagination. To do so, it starts by exploring three entangled concepts: radical imagination, utopia, and prefiguration. These notions compose a tapestry that roots blockchain into emancipatory politics, relating it to New Social Movements. Therefore, in 3.1, 3.2, and 3.3, I disentangle these concepts to properly assess their influence and analyse how they overlap within the blockchain political ecosystem. In this way, I frame blockchain as a political instrument that can organise social activity, bypassing the accumulation of

capital as the driving force. Blockchain, hence, contributes to the articulation of new forms of utopia along with acting as a tool that puts them to work in a prefigurative manner. These features endow blockchain with political potential, which is, correspondingly, present in its artistic forms.

The second half is, hence, dedicated to exploring Social Blockchain Practice Art: types of artworks that use the technology to foster community engagement. In 3.3, to understand the potential of these artistic practices, I use transition studies to re-read social blockchain practice as a free space for prefiguration, joining the previous study with artist practices, to elucidate the potential political agency of social blockchain practice. Finally, in 3.4, I continue my analysis by thinking through the work of Mouffe, exploring these practices as pre-enactments of Agonism. In this way, I consider Social Blockchain Practice Art as counter-hegemonic projects that can shape a multiverse of agonistic proposals. Part III concludes by continuing the analysis of critical digital art started in Part II, as I investigate the particular characteristics of the technology, this time as tools of radical imagination.

### **3.1 The Radical Imagination to Create Blockchain**

Radical imagination is about thinking the world differently. Yet it is more than that, as it is also about, “bringing those possible futures back to work on the present, to inspire action and new forms of solidarity today,” as pointed out by social justice scholars Alex Khasnabish and Max Haiven (2014, p.3). Radical imagination is an active process involving both present and future, emphasising collectivity in a translocal manner. It “undergirds our capacity to build solidarity across boundaries and borders, real or imagined” (Haiven & Khasnabish 2014, p.3). This practice of imagination is deemed radical because it is a reaction to “deeply rooted tensions, contradictions, power imbalances, and forms of oppression and exploitation” as Khasnabish and Haiven point out (2014, p. 3). But, most importantly, it intends to trigger a profound transformation in the beliefs that ground the system itself (Haiven & Khasnabish 2014, p. 4). Without radical imagination, I believe, the type of blockchain infrastructures detailed in this study wouldn’t exist.

In Part I, I explained how the inceptions of these projects are both a response to the current political schism and algorithmic control and envision an alternative future where new autonomous systems are organised according to social surplus stimulus. These blockchain structures create, in the present, communities united by shared values and ambitions beyond physical frontiers. Whilst looking at the future, these structures also intend to refute the foundational assumptions in the organisation of our society. To unfold these ideas, this section will delve into the relevance of imagination in the formation of a political imaginary using blockchain.

### **3.1.1 Navigating Between Social Imaginaries And Radical Imagination.**

According to Castoriadis, permanent social forms are only a temporary solidification of a shared radical imagination, which he calls Magma and says represents the ever-changing nature of an imaginary. An imaginary is collectively conceived and organises the imagination and the symbolism of the political (Browne & Diehl 2019, p. 393). Instead of a value judgement, radical imagination is, for Castoriadis, an analytical category or a sociological process. For him, it is related to the production of images that precede any thought and is related to two German concepts: *Einbildung*, as in fantasy or imagination, and *Bilder*, which means images.

However, radical imagination does not create images in a visual sense so much as a general one, which linguists would refer to as an acoustic image of a word (Castoriadis 1997). There is, therefore, a link between pictures and images to political imaginaries, since they are connected to types of imagination. “They are manifestations of the imaginary while they motivate modes of perception and types of imagination,” as Craig Browne and Paula Diehl assert (2019, p. 396). Composing a new social imaginary is a political task with symbolic power, and it is formulated through acoustic images of a future world created with a shared radical imagination. Either fostering knowledge commons production or creating a care network, blockchain is an adaptable tool that radical imagination can put to work to generate alternative social imaginaries articulated through technological means.



Social imaginary is a broad term that encompasses the ways in which people imagine their social existence. It is a “common understanding that makes possible common practices and a widely shared sense of legitimacy” (Taylor 2004, p. 23). Hence, the political potential of blockchain is related to its capacity to convey a clear social imaginary. Imagination becomes, in turn, constitutional and constituent. It “is a practice that is not only potentially practical in its effects, but also purposeful in its intentions: polemical and problem-solving at the same time” (Oklopcic 2018, p. 13).

Moreover, thanks to this potential, as Antonija Oklopcic (2018) explains, imagination holds the ability to affect the social imaginary of popular sovereignty, along with helping to generate a sense of anticipation at a moment of struggle. As a result, an imaginary also stands as a form to consider the world into being, opening a new space, where imagination “can be understood as a temporary site of resistance and alterity” (Latimer & Skeggs 2011, p. 404). Blockchain social imaginaries are evocative and transformative because they create different images of worlds with alternative social production according to specific collective desires. They join, in this way, critical and resolute features, as they implicitly challenge the legitimacy of the existing imaginary by challenging it with their own version of utopia.

### **3.2 Utopian Futures of Blockchain**

In contrast to NFTs, the blockchain projects at stake in this study are a reaction to the current economic and political reality. Instead of continue expanding on hyperfinancialisation like, for example, NFTs, the practices at stake here offer an alternative social structure that does not prioritise the market. They highlight all tasks that come to support the making of a community to generate a counter-hegemonic order. Inevitably, this has an after-taste of utopia and thus this section intends to reflect on the relation between utopia and the socio-political connotations of the type of blockchain projects that will be explained in 3.4 below. First, I briefly introduce the classic referents of utopian thinking to then re-contextualise these theories in relation to today’s post-digital condition. Second, I will focus on the work of Miguel Abensour and Ernst Bloch to understand the workings and potential of utopian imaginaries of blockchain in terms of its temporal framing and ethical approach.

### 3.2.1 Referents Of Utopian Thinking.

The three great utopian thinkers—Henri de Saint-Simon, Joseph Fourier, and Robert Owen—located the outset of utopia in the absolute break. They tried to enfranchise humans by presenting them with utopian images of a new world with radically different social relations that open a new path away from capitalism. Blockchain imaginaries act likewise, presenting themselves as a rupture with the previous order that triggered the Great Recession, and formulating ways towards emancipation, as it was previously described.

When talking about a utopia nowadays, it is of foremost importance to acknowledge the profound transformation of the political and economic context of the world post-2008 crisis. On the one hand, the political is undergoing a transformation because there are new combinations of old ideologies (Grant 2014, Nowotny 2014, Wilson & Swyngedouw 2015), which concomitantly diminish political agency and produce political disaffection (Mouffe 2005, Beveridge & Koch 2017). In this context, blockchain emerges as a new online and onsite political experience affecting the collective imaginary of the political (Husain, Franklin, & Roep 2020, p. 380).

On the other hand, economic circumstances have also changed since 2008. Globalisation has transformed state power into mere economic actors. This situation has triggered a particularly productive wave of economic resistance, whose intention is “the reconfiguration of relations of property, production, and communication outside of state” (van de Sande 2015, p. 183). The release of the White Paper *Bitcoin: A Peer-to-Peer Electronic Cash System*,<sup>67</sup> which coincided with the beginning of the 2008 economic crisis, is a crucial moment in that movement. Therefore, blockchain is nested within both political and economic narratives, since its affordances can compose alternative forms of governance, endowing the technology with the potential for utopian solutions to current societal issues.

---

<sup>67</sup> See [Bitcoin: A Peer-to-Peer Electronic Cash System](#)

### 3.2.2 Lex Cryptographica As Simulacrum.

The question that triggers this investigation wonders about the language used by today's utopia. For this reason, when thinking about blockchains' role, I turn to the writing of Abensour. He explains utopia as a form of simulacrum, as it holds "an effect of resemblance by different means than the model: it is built upon a disparity and this enables it to liberate difference from all subordination to the similar and the identical" (Abensour 2017, p. 47). Likewise, blockchain can propose, in the present, an alternative configuration of social imaginaries, grounded on the desire of rupture. The technology provides a space of alterity using *lex cryptographica*, the private regulatory frameworks that operate on each blockchain, which can create any type of regulation that will be implemented on the governance infrastructure of a blockchain organisation.

In Part I, I explained the potential threats of the ex-ante nature of *lex cryptographica*, which would enforce a set of rules without discretion, and thus render dissidence or accountability impossible (De Filippi & Hassan, 2016). Nevertheless, the temporal dislocation of the normative system from ex-post to ex-ante entails predesigning the future. Since the norms are implemented and enforced beforehand, the future is already defined in the present through the set of rules that will be applied. *Lex cryptographica* creates a *de facto* simulacrum.

This simulacrum is never singular because technology can be endlessly reconfigured to support any potential configuration of utopia. For Abensour, utopia is a form of "seduction, a stimulus to present action" (2017:47) that acts in the realm of affectivity. "The simulacrum is a rupture with the world of essences, forms, or norms: it opens a new career to becoming and makes possible the invention of the new" (Abensour 2017:47).

Perhaps now more than ever, then, when blockchain technology is still so nascent, it is poignant to consider it as a becoming, which can tap into the affective forces generated in this world post-crisis. The technology can constitute a space for alterity and, as was argued before in Part I on Chapter 3.2., become the locus for a place-based politics, which implies the re-appropriation, re-construction, and re-invention of practices and possibilities (Harcourt 2014). The technology functions as a seduction of a future social order by proposing a social

imaginary implemented on its *lex cryptographica*. It is a rupture and a path. Blockchain brings up new utopias that work as a simulacrum, producing as many *elsewheres* as disaffections today.

### 3.2.3 Anxious Hope

According to Uri Gordon, generations ago, the future was an affective space traditionally composed of expectant optimism; however, nowadays, it is filled with anxiety, bitterness, and culpability (2018, p. 533). This alteration of conditions also affects the structure of utopia. Utopia is always linked to a desire for change and has an ethical approach (Levitas 1990, Bloch 1959, Morris 1890). This means that descriptions of social arrangements is not what stimulates a revision of a hegemonic order; rather, it is the exploration of values that is undertaken (Levitas 1990:33). Bloch relates the notion of hope to the impulse for social action, considering that concrete imaginings are able “to extend, in an anticipating way, existing material into the future possibilities of being different and better” (1959/1995, p. 144). Hence, the future is the beholder of that hope; but, what can its role in this anxiety-filled future be?

Bloch’s principle of hope, which comes from the affective and powerful idea of the “not-yet,” requires a re-formulation. Heidegger (1953/2000) noted that anxiety holds the potential for enlightenment, since it is the first experience of freedom, a manifestation that conceives and re-conceives the world in many ways. Recognising the present anxiety as the first symptom of emancipation reshapes the feeling into a tool that triggers a search to think and construct an alternative future. Similar notions can be found elsewhere; for example, in the research on sustainability activists in Turkey. Anthropologist Bürge Abiral points out that, “instead of being an opposite of hope, anxiety is a companion to it. [...] the anxiety that they feel about the future accompanies their hopeful condition and all the more pushes them to act in the present” (Abiral 2015:96)

Blockchain was born out of that anxious hope at the beginning of the 2008 crisis. Its temporal framework is grounded in the present. It brings hope to the community that sees in the technology a way of escaping the hegemonic order of today and, most importantly, it

provides an alternative that can be practiced today. This anchoring in the present makes it a form of concrete utopianism, far from abstract utopianism, which Levitas (1990) describes as hieratic social blueprints or personal daydreams.

In summary, then, blockchain structures updates Bloch's principle of hope but updated with a Heideggerian anxiety. New non-capitalocentric blockchain structures are responses towards anxious hope, which reciprocally bestows its community with hope. This recursive movement creates an imaginary of *elsewheres* and *otherwises* that draw into the affective nature of the desire for change.

### 3.3 Blockchain As A Structure For Prefiguration

The previous interpretation of utopia connects with the notion of prefiguration in their shared future orientation and an ethical attitude. Utopia often revolves around creating autonomous spaces with different social relationships, providing a texture of feeling which moves beyond the despair of capitalism to become the productive notion of anxious hope. Prefiguration, in turn, thinks likewise but emphasises direct implementation, thereby replacing the temporal separation between the struggle of today and goals in the future. Thus, prefiguration is an interplay between theory and practice that creates alternatives in the here and now. Noel Sturgeon (1995, p. 36) calls this Direct Theory, as it theorises through action.

As political theorist Ruth Kinna argues, the two notions are not opposed, as the “dreams and visions (of utopia) still have a place in these strands of prefigurative practice” (2017, p. 198). Rather, their entwinement can be observed in the various definitions of prefiguration. For example, Steve Buechler explains that the “pursuit of utopian goals is recursively built into the movement's daily operation and organisational style” (2000, p. 207), and John Carter and Dave Morland refer to prefiguration as “a strategy that is an embryonic representation of an anarchist social future” (Carter & Morland 2004, p. 79). Prefiguration shares foundational aspects with utopia and anarchism, although it has a practice-oriented nature.

In the same way, social projects using blockchain use the ex-ante nature of *lex cryptographica*, a tool for prefiguration that implements and enforces a set of rules agreed by

the community. Hence, practice and theory work simultaneously to formulate and represent their form of utopia. Through a series of examples, I would firstly demonstrate how these socio-technical assemblages replicate the same dynamics of any prefigurative movement, and then, I will zoom into the affective nature of prefiguration.

### 3.3.1 Five Dynamics Of Prefiguration In Blockchain Environments

The term “prefigurative politics” was first used by two social theorists: Carl Boggs in 1977, and Wini Breines in 1979. They specifically designate these new tactics as value-oriented practices within the New Left tradition (Gordon 2018, p. 523). However, they developed two different takes that would orient the discourse in the years to come. Boggs, later followed by Graeber, would come to stress a way of mobilising in which “means reflect the ends.” Breines, followed by Barbara Epstein, would focus on the capacity to create alternatives or parallel projects beyond political mobilisation per se. The former alludes to the future-oriented construction of political alternatives, and the latter strives to reflect political goals or values in social movement processes (Yates 2020, p. 1).

The two standpoints are connected, revised, and enhanced by another layer, which gives rise to a third dynamic: the idea of prolepsis. This concept differentiates between prefiguration specifically during a protest movement or, alternatively, in any other practice of the everyday. Sociologist Luke Yates explains it as “to anticipate or enact some features of an alternative world in the present, as though it has already been achieved” (Yates 2015:4).

The three threads present a certain vagueness.<sup>68</sup> Therefore, to analyse the parallelisms between prefiguration and the workings of social blockchain projects, I followed the study by

---

<sup>68</sup> On the “means equals ends” orientation, it is unclear what goals or process are referred to since, usually, two different notions of “ends” are used interchangeably. The first, “an end in itself,” means an utterance of immanent value, which can be directly achievable through direct democracy, for instance. The comprehensibility of the second, “an end result,” depends on the temporal framework, as it concerns a desired future without clearly linking it to past, present, and future. (Gordon 2018, p. 522). Furthermore, in the case of the second strand of “building alternatives,” there isn’t any clear difference “between prefigurative activities and the collective identity processes of countercultures, subcultures or other forms of idealistic or utopian grouping” (Yates 2015, p. 13). Lastly, in the case of prolepsis, it is also unclear how the idea of performing anticipation is actually relevant for the participants of the movement, or whether it just an analytic concept applicable *a posteriori*.

Yates, where he explains that “prefiguration necessarily combines the experimental creating of alternatives within attempts to ensure their future political relevance” (Yates 2015, p. 13). In this framework, prefiguration is articulated through five interrelated processes, which merge all above-mentioned threads by finding commonalities and potentialities; these dynamics can also be observed in Social Blockchain Practice Art.

First, Yates explains that, either in everyday practices or during mobilisation, prefiguration always involves *experimentation* (2015, p. 13). Due to the emergent state of blockchain social infrastructures, they are, in themselves, an act of experimentation on the level of protocol and in social terms. The technology is often put to work in a prototyping phase, where different options are tried out to properly adapt the functions of the affordances to the characteristics of the group in a given context.

Blockchain expert David Rozas explained, in a panel discussion at Van Abbemuseum, how P2P Models, the research centre he works for, has done in different commons-communities such as Amara and Guifi.net<sup>69</sup> to evaluate how could potential implement blockchain solutions to manage them. He explains the necessity of these prototyping sessions as ways to maintain and not disturb inner dynamics within the community.

Second, “prefigurative groups host, develop and critique political perspectives, ideas, and social movement frames” (Yates 2015, p. 14). The outset of blockchain was a reaction to the anxious hope brought by the Great Recession, conferring its community of practitioners with an implicit *criticality* against the networks of power and oppression in post-digital society. This is expressed in the wish to make visible and improve the practice of the community through different online and onsite events like Meetups, conferences, and talks. For example, many blockchain companies have a steady programme of conferences and discord groups dedicated to building a community around their product or aligned with their ethos. Acting in the same way as prefigurative groups, these Discord groups have a double intention. On the one hand, they stimulate participation and encourage, in the everyday, new

---

<sup>69</sup> Amara is a group of translators online, and Guifi.net is an internet provider for rural areas in northern Spain. Episode three in the podcast is specifically dedicated to explaining these examples.

ways of imagining, playing, and learning within the ideological positions that they are subscribing to. On the other hand, they are also “an attempt to reorganise or reimagine practices” (Yates 2015, p. 14), since these groups are often also where new ideas are proposed, inviting public comment.

Third, prefiguration brings a *set of norms* stemming from the political outlooks and their experimental performances. In the case of blockchain, the norms are created based on the collective goals reflecting their political views and they are embedded in the governance mechanisms on a code level. For instance, Aragon is a company dedicated to building governance solutions on blockchain; according to their website, it “was born out of emergent societal crisis, and failure of democracy.” In their manifesto, they declare their wish to defend self-sovereignty, to create collaboration mechanisms, and stimulate long-term value versus short-term profit.<sup>70</sup> This example illustrates two recurring aspects of the blockchain community: an inception that responds to a feeling of crisis and the endorsement of values in accordance with prefigurative social movements. These factors trickle down to a normative system executed through, for example, smart contracts.

Fourth, the success of prefigurative social movements entails the *consolidation* of an experimental beginning, their codes of conduct, and political symbolic meaning in social orders and material contexts (Yates 2015, p. 14). These conditions are translated into permanent gestures that become implemented in social life and come to epitomise the values of the movement. In a blockchain environment, this would imply that all those symbolic traits are not only present on the protocol but affect the social life of its community. By way of illustration, Circles is a blockchain platform dedicated to developing “local economic interactions, and to value those things which are not seen, are invisible, or are not valued under our current system.”<sup>71</sup> This system is intended to be a new kind of exchange based on the growing value of their communities. As a result, Circles clearly demonstrates a type of political orientation that aligns with prefiguration, along with enacting it through a system of exchange that mirrors it in the present.

---

<sup>70</sup> See <https://aragon.org/manifesto>

<sup>71</sup> See <https://joincircles.net/faq>.



Lastly, the prefigured alternatives carry on beyond the present through demonstrations and *dissemination* of practices, orders, devices, and perspectives (Yates 2015, p. 14). This means that distribution activities are dedicated to voicing their project of dissent, collective force, and the existence of political alternatives (Yates 2015, p. 14). Taking the previous example of Discord groups, new blockchain solutions reinforce the prefigurative capacity. Not only do they develop new tools on blockchain, they also use their own public programme to disseminate those ideas. In this way, their prefigured alternatives generate a translocal community of likeminded practitioners united by their wish to spread their non-compliance with the networks of power and their projects of resistance.

These five interrelated processes arise from the three traditional perspectives and provide a more accurate way of defining the process of prefiguration, which collaterally helps to elucidate the same potential of blockchain social infrastructures. The technology acts as a versatile apparatus that can enact a desired future through a series of affective actions that perform and disseminate their project of dissent. Hence, this section unfolds the role of the affects in the development of an imaginary and in correlation with blockchain.

### **3.3.2 Prefigurative Politics And Affectivity In Blockchain.**

Prefigurative tactics are value-loaded activities that provoke an affective union among the participants in a social movement. These social movements come to be spheres of alternative social production within the participating agents (Castells 2015), generating a sense of political belonging, which creates a common identity and authority for acting politically (McNevin 2011, p.15). Evidently, this kinship is imbued with a particular value system that is put to the fore, as prefiguration is “the continuous exercise of testing the imaginary landscapes against the necessities and subterranean flows of daily life” (Campagna & Campiglio 2012, p.5).

This development of kinship relations in a social movement is analogous, I argue, to the current formation of relationships currently happening in the blockchain ecosystem as a

form of Squad.<sup>72</sup> Researchers of the Other Internet, Sam Hart, Toby Shorin, and Laura Lotti, define it as “both a product of—and a response to—contemporary social atomisation” (2020, par 3). Like New Social Movements, they are a specific reaction against the politico-economic context. As they state, “Squad culture is the antithesis of neoliberal individualism” (Hart et al. 2020, par 4).

Prefigurative tactics<sup>73</sup> are, concretely, practices like egalitarian decision-making (Maeckelbergh 2009, 2011), voluntary and non-profit proceedings, decentralised organisation, and an effort to fight against discrimination and oppressive social forms (Gordon 2018, p.523, Kinna 2017, p.202). As Pellizzoni points out, these anti-hierarchical and anti-capitalist traits remind us of the anarchist tradition, especially in terms of issues like the preference for direct action, the consistency between means and ends, and self-organisation and mutual aid (2020, p. 3). In the case of the digital Squad, they come together under a set of similar values often found in other social movements, such as self-organisation, support within the community, and consensus-driven decision making. These principles become apparent in the actions they collectively develop, which accordingly become acts of prefiguration.

For instance, *Black Swan*<sup>74</sup> is a digital initiative enabling governance mechanisms and collective fund allocation for communities of creative practitioners taking the form of DAO. This blockchain construction acts comparably to a Mock-institution (Sholette 2015) and follows the same structure as Tactical Media, explained in Part II chapter 2.2.2. The project aims to think through the technology to develop a fairer way of distributing funds to realise a new artistic proposal between their community. These kinds of projects on blockchain, therefore, come to be prefigurative acts, which use the affective repercussions of the

---

<sup>72</sup> There are several researchers using this term, for example Other internet <https://otherinter.net/squad-wealth/>; and the podcast interdependence <https://www.interdependence.fm/episodes/squad-wealth-and-headless-brands-with-other-internet>

<sup>73</sup> As a political action, prefiguration has become more prevalent since the rise of New Social Movements and especially since the “anarchist turn” in the 1990s (Haiven & Khasnabish 2014, p. 9), but predominantly from the 2000s onwards, as argued in Part II, due to the cross-pollination of action repertoires and networking cultures (Gordon 2018, p. 523; Juris 2008; Maeckelbergh 2011).

<sup>74</sup> They participated in the project I curated at Van Abbemuseum, and we hear more about them in the podcast.

affordances to engage with their community and enact, in the present: a desired unwritten future guided by collective values and goals. The affectivity embedded in the digital infrastructures is, thus, fundamental if we are to understand its political potential and to explain the value of Social Blockchain Practice Art, which I will now do.

### **3.4 Blockchain Social Practice Art as Free Spaces**

In the first half of Part III, I have explained at length the workings of prefiguration, its different strands, and the ways it functions in a blockchain environment. The artworks using this technology naturally inherit the same characteristics, as they also use *lex cryptographica* as a tool to configure their prefigurative yearning. Thus, Social Blockchain Practice Art is prefigurative. Prefigurative art is concerned with conveying experimental practices that convey an alternative system against an external oppression. “It is a matter of performing particular initiatives in order to show that change is possible,” asserts art historian Ewa Domanska (2017, p. 1).

Nevertheless, revolutionary societal transitions rarely occur and because they happen in a range of different contexts and timeframes, it makes comparisons difficult (Törnberg 2021, p. 84). Social Blockchain Practice Art can “prefigure a future society at a micro level with the aim to instantiate radical social change in and through practice” (Törnberg 2021, p. 83) Ensembl, for instance, is a blockchain project managed by Samson Young, artist, and performer; by writer, filmmaker and anthropologist Massimiliano Mollona; and by Andrew Crowe and Ashley Lee Wong from art and technology studio MetaObjects. This project aims to create a DAO that could reflect the collaborative and changing nature of music performances. In this way, they put into question the notion of authorship and inquiry into new potential shapes of artistic collaboration. These types of projects use blockchain as a tool for their radical imaginings, thinking of new forms of democratisation and governance that could facilitate a more equal art world. They help us imagine a pluriverse with different modes of change.

Literature about social change has not specifically linked the large-scale revolution studies and small-scale social movement studies (Haunss and Leach 2007; Simi and Futrell 2009; Vinthagen and Johansson 2013). But, if we turn to contemporary art and the study of socially engaged practices, one can find references to how these projects as micro-utopias, or pilot projects, like the one of Ensembl.

To address this, by following the study of Anton Törnberg (2021), which links transition studies and the socio-technical change literature with prefigurative politics, I intend to explore how Social Blockchain Practice Art acts as a free space for social change, thereby allowing me to understand its political relevance in society at large. To articulate my argumentation, I will delve into the technical aspects of transition studies to explain how free spaces function as cultural laboratories for prefigurative practices. I connect this line of reasoning to the studies on performance and re-enactment by Shannon Jackson (2020). This argument links back to my explanation about the praxis in social practice art and, thus, I intend to extrapolate Törnberg's research (2021), whose key assumption is that technological innovation and prefigurative social innovations act in parallel, to elucidate the importance of Social Blockchain Practice Art not only as a relevant form of artistic experimentation, but as a way to trigger social innovation.

### **3.4.1 Free Spaces And Prefiguration In Transition Studies**

In the 1990s, transition studies started investigating the technical equivalence to prefigurative politics. It considered how and when new technical innovations incubated in a niche manage to break out to replace technical solutions already established in society. More recently, transition studies have been incorporating social movement theory to understand bottom-up societal transitions (Hess 2018, Juarez, Balázs, Trantini, Korzenszky, & Becerra 2016, Törnberg 2018) and how social practices, ideas, and organisational forms spread through a movement (Polletta 2005, Soule and Roggeband 2019).

Within transition studies, a niche is defined as “a space for experimentation shielded from market competition where radical, path-breaking innovations could be developed” (Thörnberg 2021, p. 87). Niches therefore act as a protective buffer to secure, nurture, and empower (Raven, Kern, Verhees, & Smith 2016, Smith and Raven 2012). They also offer protection that avoids the innovation being rejected at an early stage by society.

Free spaces are one type of niche and provide an incubator for innovations that cannot survive within a given political infrastructure and its norms, which are already completely consolidated in society. Free spaces are small-scale niches that are therefore pivotal in

societal transitions as they provide a proactive space where prefigurative innovation can flourish. Or, as Chandra Mukerji puts it, free spaces provide “shelter for dreams of possibilities that lie outside political discourse” (2014, p. 349). For Thörnberg, too, free spaces are especially relevant in radical prefiguration, since they act as cultural laboratories that permit activists to wrestle hegemonic narratives, both cultural and institutional. In them, activists can construct embryonic countercultures that contravene hegemonic cultural paradigms and their implicit common sense (Thörnberg 2021, p. 89).

Thörnberg proposes five different pathways by which a free space can successfully define the result of a prefigurative attempt at social change. The reconfiguration pathway (Thörnberg 2021, p. 99) seems, in the context of blockchain and art at large, the most suitable. In this case, the innovation, namely the radical use of blockchain, is somehow compatible with the regime and implemented as an add-on.

We can apply this to artworks minted on NFTs, for instance, as the application seems to solve certain problems, but it doesn’t challenge the underlying logic. An NFT offers the possibility of tracing provenance and creates a sustainable remuneration to the artist; but it doesn’t directly question issues like scarcity or ownership. After the innovation is incorporated into the infrastructure of the old regime, it triggers changes in its basic architecture; for example, collectors, investors, and museums acquiring these digital works *en masse*. Although these changes aren’t radical in themselves, they start new patterns of interactions that lead to new forms of organising that could potentially undermine the regime, according to Thörnberg (2021, p. 99). For example, projects like FlamingoDAO, which is dedicated collectively acquire NFTs, which, collaterally, inquires into the potential of co-ownership in our post-digital society.

On a larger scale, these changes raise awareness about the technology and, collaterally, about social uses that could trigger social change. Similarly, SBPA creates a fluid space for prefiguration that nurtures alternative social paradigms grounded on non-capitalocentric values. Acting independently but working with others online and offline, these artistic practices convey a multitude of agonistic proposals that contravene the status quo and its hyperfinancialisation.

### 3.4.2 Re-enactment

Considering blockchain practices as free spaces allows us to imagine what type of social innovation we aim for. As we know, blockchain is innately prefigurative because of *lex cryptographica*, and articulates a new space to rehearse a society that we desire preparing for the potential issues that might arise. As a free space, it offers a shielded place for rehearsals, untouched by market or societal dynamics, evolving and creating a multiverse of agonistic counter-hegemonic proposals. SBPA functions, within these free spaces, as a way to prefiguratively embody any social alternative. Theatre director Stephan Kaegi calls these “anticipatory simulation games” (Kaegi 2016, n.p.), that is, “re-enactments where viewers, players, users, and concerned persons themselves climb into stranger’s skins.” However, he continues, the result is often not the reconstruction of the past but a speculative reflection on our present and future, which prepares us for the arrival of that future (Kaegi 2016, n.p.).

Whether in the shape of prefiguration or re-enactment, this dislocated time is a productive condition that permits the exploration of politics to come, and how they are interlaced with the past by practising them in the present. Performance historian Shannon Jackson specifies that “to enact again might be to re-contextualise, to take out of context and place in a new one, and thereby to wrestle with a poor context so that it can make a different sense, or a different non-sense, anew” (2020, p. 21). Hence, the temporary fluctuation of a free space enables artists working with blockchains to develop and practice new forms of empowerment adapted to the nuances of each community that they conform to. This possibility endows their proposals with the time and shelter to enact their path to emancipation. If they could follow the reconfiguration pathway described by Thörnberg (2021, p. 99), these changes could be adopted as an add-on in a future system, which could then, later, spawn a series of tacit changes that might inspire deep-seated discussion about the failing system that they intend to subvert.

### 3.5 Social Blockchain Practice Art as the Pre-enactment of Agonism

Gregory Sholette wonders, “Can you have a revolutionary art without a revolution?” (2004). Neither the traditional avant-garde like Dada nor neo-avant-garde artists like the Situationists found a revolutionary movement that carried their revolutionary desires. Afterwards, in the 1980s and 1990s, examples like ACT UP and Gran Fury represented what radical, transformative art could look like. However, as Sholette (2004, 2008) reminds us, today the radical imagination of artists is limited to media tactics, without any visionary perspective where social transformation could actually happen.

In contrast, in their study of art and recent social movements such as Occupy, Meg McLagan and Yates McKee (2012) located the importance of art in its capacity to generate embodied experiences of sight, sound, and touch. These encounters present political claims against the status quo, which help in building up the collective imaginary of the social movement (McLagan & McKee 2012). The specialised identity of art reinvents its function beyond the museological enclosure; it becomes a new kind of political force. It is radical imagination that makes us question how we live (McKee 2017, p. 286).

Social Blockchain Practice Art stimulates action in the present connecting it with the realm of affectivity. It is often set in a fictitious near future and, as I argued above in 3.2.3, prefiguratively embodies the post-capitalist future as a response to our present Heideggerian anxious hope, while as I previously explained, artists enact the workings of *lex cryptographica* as a simulacrum, as Abensour (2017) proposed. The underlying question of blockchain projects and their world-making skills is precisely to question the viability and propose new re-arrangements of social life in a post-capitalist unrealised future.

In the age of information- and image-based industries, society demands a new social fabric, according to Michael Hardt (2009). Nonetheless, due to its radically different texture, it needs imagination and a sense of possibility to generate new emancipatory ideas. For Hardt, the construction of social relationships and ways of life is developed by three different fields: politics, economics, and art. By asserting the role of art in the creation of alternative forms of social life, Hardt is reinforcing art’s worth within traditional spheres of biopolitical production.

Mouffe explains that the impossibility of dissent in liberal democracy is at the root of political disaffection on one side, and the rise of extremism on the other. “While consensus is no doubt necessary,” she contends “it must be accompanied by dissent” (Mouffe 2013, p. 8). Without the proper legitimate political channels to voice it, politics are now imbued with a feeling of unresolved crisis and continued blockade. Blockchain technology offers the opportunity to rethink and re-articulate the norms and institutions of power, potentially altering the concept of value, moving away from property or scarcity, to embody a diverse economic system (Gibson-Graham 2006). Not only can blockchains encompass ways to manifest disagreement on a code level, the technology is, in itself, an expression of dissent. The artistic practices based on this technology are critical engagements with post-digital society, and by performing the potential of blockchain, they become exercises of anticipation of a potential new and diverse society to come.

In the rest of Part III, I interpret and aim to establish the political agency of Social Blockchain Practice Art as a contribution to discourse and potential practice as pre-enactment of agonism. I start by exploring these artistic practices as an expression of counter-hegemonic orders. I then investigate its capacity to construct new world views with new social and political orders, considering them as embodiments of multiverses. Lastly, I analyse Social Blockchain Practice Art’s political potential, as determined by its capacity to pre-enact<sup>75</sup> Agonism.

### **3.5.1 Social Blockchain Practice As A Counter-Hegemonic Project.**

As many have already said, blockchain technology has a radical disruptive potential in terms of economics, politics, and governance (Swan 2015, Tapscott & Tapscott 2018, De Filippi & Wright 2015, Vigna & Casey 2018). However, blockchain is still a nascent technology, and its effects and potentialities are only to be determined by its future development and its consequent usages. Amid both praise and controversy, Bitcoin is, so far, the best-known

---

<sup>75</sup> I use the word pre-enact in the same way as Oliver Marchart does, I will delve into these ideas later on.



example of the technology, and it has managed to open up a much-needed conversation about international financial systems, challenging the notion of value at large.

Beyond this financial conversation, however, blockchain also holds the potential to radically question the very system that upholds the hegemonic orders that determine our social institutions. Previously in my argumentation, I have considered blockchain as a socio-technological structure that can arrange social life following non-capitalocentric values, giving priority to the making of a community and, thus, focusing on fostering social surplus. Digital art, in turn, is a critical practice that problematises the effects of neoliberalism and is attuned to the necessities and claims of a post-digital society. Accordingly, this section investigates the artistic practices that are based on blockchains in relation to Mouffe's work on hegemony. The intention of this analysis is to understand these works as representations of noncompliance with the hierarchies and regulatory principles of the networks of power, proposals of counter-hegemonic practices, and new forms of dissent.

"Any order is always the expression of a particular configuration of power relations," asserts Mouffe (2013, p. 2). However, she explains, it is not definitive but a provisional and precarious articulation of contingent practices (Mouffe 2005, p. 18), meaning that any order could also be challenged and subverted by any other counter-hegemonic practice. This contingency establishes "the hegemonic politico-economic articulations which determine the specific configurations of a society at a given moment" (Mouffe 2005, p. 33). The apparent instability is also an opportunity to transform social production and reproduction by asserting different power orders.

Artists using blockchains explore this opportunity with experiments and experiences that think through the affordances of the technology as an apparatus for dissent. In her PhD thesis, Brekke presents the idea that blockchain can translate political and economic issues into technical questions that can be resolved with technical means (2019, p. 43). This solution would therefore mean skipping institutional regulations and hierarchies. She highlights that "blockchain is a different form of proposition for a neutral substrate on top of or through which difference might be negotiated and brings with it its own 'legitimate' forms of contestation" (Brekke 2019, p. 213). The technology encompasses its own mechanisms to

voice dissent and, thus, generates what Mouffe calls Conflictual Consensus, which is a type of conflict that takes an agonistic form, where the opponents are enemies and not adversaries (Mouffe 2013, p. XII).

Although Brekke's thesis only focuses on the mechanisms by which blockchain can state disagreement (Brekke 2019, p. 213), I dedicated Part I to argue that blockchain is a structure that can voice dissent and give a space of autonomy to communities looking for emancipation. Therefore, it presents a counter-hegemonic order that could confront the capitalist system of reproduction. As a result, the political potential of blockchain is much more acute and nuanced, because it provides a governance<sup>76</sup> structure with new alternatives adapted to the necessities of each community, which bestows the capacity to debunk the sedimented practices that convey the hegemonic systems of today. However, it is not a singular answer, but a plural and diverse response, which uses the plasticity of its affordances to adapt to the shared values and goals of each community, determining its socio-economical organisation.

Social blockchain practices are propositions of alternative social configurations. They are thus intrinsically related to collective forms of identification. On the one hand, this decentralised technology can organise social ecosystems as autonomous from market rules by programming their relations in a peer-to-peer manner and making visible interdependencies and fostering social surplus. On the other hand, like any social practice, as Lippard points out, it “engages not only with a specific group of people, but also with their social and cultural concerns. [...] it grapples with social conditions, political context and unique history” (2012, p. 14). Consequently, artistic projects based on blockchain constitute a particular community with a specific set of values that arrange their interactions. Stating a difference is foundational to these alternative social configurations and, as Carl Schmitt<sup>77</sup> (1976) affirms,

---

<sup>76</sup> For example, in Part I, I mentioned quadratic voting as a voting mechanism that could help guide an organization such as a DAO in their inner workings by taking decisions referring to the community's preferences instead of only looking at majorities.

<sup>77</sup> Carl Schmitt is a controversial political theorist that nazis used in their political agenda. Later on Chantal Mouffe also utilizes his thinking to describe agonism and, thus, I also refer to him here in relation to pluralistic agonism.

it is the precondition for any identity. A difference is often constructed because of a hierarchy and reveals incompatible projects, whose conflict cannot be overcome. Antagonism is, hence, ever-present and this ontological dimension is what Mouffe names *The Political*.

Mouffe has also been influenced by Gramsci, who noted the impact of artistic and cultural practices in the formation and diffusion of what he called “common sense,” meaning the specific understanding of reality, the way in which a particular subjectivity is constructed. Concretely, for him, “common sense” played a pivotal role in the reproduction or disruption of a given hegemony. In turn, Mouffe emphasises the potential of art to undermine the social imaginary needed to reproduce capitalism. She explains that “to apprehend their political potential, we should visualise forms of artistic resistance as agonistic interventions within the context of counter-hegemonic struggles” (2005, p. 8). Each artistic project performs a distinct order that comes to introduce a different counter-hegemonic practice. They *perform* the political. These experiments call into question previously sedimented practices and tentatively propose another form of hegemony. By doing so, they state a difference, and with it, an unresolvable conflict.

This type of disagreement is phrased as a form of Agonism: a struggle between adversaries who are fighting for their interpretation to become a hegemony, but without casting doubt on the legitimacy of their opponent’s right to fight (Mouffe 2013, p. 7). Mouffe thinks of Agonism as the “tamed version of Antagonism” (2005:20), a legitimate way to voice dissent that can prevent democratic disaffection and political extremism. The potential of Agonism is, consequently, immanently present in artistic practices that use blockchain, because they always embody an alternative vision of a given hegemony. They put forward an opposite order that lives in parallel to the reality they populate.

The multiplicity of the compositions of blockchains and its manifold uses and understandings present in Social Blockchain Practice Art compose a myriad of counter-hegemonic orders. Each and every one uses the instability of the limits between the social and the political, and all posit possible ways of re-negotiating and displacing hegemonic systems. These projects embody adversarial proposals and, thus, put forward pluralistic Agonism, which inevitably endows them with political agency.

### 3.5.2 As The Pre-Enactment Of Agonism.

Social Blockchain Practice Art proposes and rehearses alternative social orders that challenge the systems of reproduction of neoliberalism in a post-digital society. These forms of aesthetic dissent turn into a speculative performance whereby artists and likeminded agents anticipate a society to come, since they can engender a new, digital, and decentralised space of agonistic politics. This is precisely its counter-power: the capacity to pre-enact in the present, the future that they long for. Continuing my investigation of Social Blockchain Practice Art's political agency, I will now reflect on its capacity to pre-enact agonism, both as a political strategy and an act of imagination. Marchart points out that "the point of pre-enactment to critically extrapolate from contemporary developments an image of our social or political future" (Marchart 2019, p.176). To him, this practice is rendered in Live-Action Role Playing<sup>78</sup>, for instance. He clarifies that "rather than reviving events of the historical past (such as historical battles), a critical dystopian view is cast in our future by artistic pre-enactors." (2019, p.176). I read this possibility in relation to blockchain and, more concretely, in connection to its particular affordances, which encourage experimentation by using the technical possibilities to generate de facto new worlds envisioning new imaginaries based on communal action towards promoting social surplus. For example, the work of Aiwen Yin *Liquid Dependencies* uses LARP as a methodology to enact a future community sharing a social imaginary based on care values. This participatory performance not only makes possible to experience how this situation might look like, but also confronts the participants with this radical social order. The difference between our hypercapitalist reality and this imagined re-organising of society come to be a powerful tool. This leads to the development of affective engagement since collective identities are built through the types of social relations encoded via token design, hinging on collective goals and values. This process, in turn, acknowledges mutual differences that bear the we/they distinction (Schmitt 1976),

---

<sup>78</sup> To make this idea even more clear, in my curated discursive events at Van Abbemuseum, I decided to do two workshops using LARPs as methodologies for critical thinking, one by Black Swan and another by Aiwen Yin.

which are the locus of antagonism (Mouffe 2005, 2013). I argue that these artistic practices are embodiments of prefiguration because they both experiment with counter-hegemonic orders, which, later, are performed in social interactions.

Marchart recognises that,

as long as we are not touched by a real antagonism, every enactment of the political will be of the order of pre-enactment. Regarding the actual emergence of the political, it will come too early. It will thus be the anticipation of the political, rather than its direct enactment. (2019, p. 178)

Artistic practices are able to convey a view of a tentative political event to come, since they “mimic the structural conditions of minimal politics” (Marchart 2019, p. 181). They make it possible to pre-enact agonistic pluralism, giving a glimpse of what it might look like to experience a multiverse of agonistic orders by proposing a myriad of new conceptions to subvert the hegemonic order of capitalism. It functions in the same way as Timeless Time works for the participants in a protest: “They live in the moment in terms of their experience, and they project their time in the future of history-making in terms of their anticipation” argues Castells (2015, p. 251). A pre-enactment is, consequently, an act of potentiality that deals in the real with an artificial time and space, a moment in a territory that is not yet realisable.

It is therefore similar to an experiment, as it is a performative practice that does not aim to revise or replicate a past event. As Marchart explains, “the point of pre-enactments is to critically extrapolate from contemporary developments an image of our social or potential future” (2019, p. 176). They are experiences of the future that are used by the artists to articulate an ideal time to come, along with showing the audience and asking them to engage and participate in the building of a society ahead. In this way, these projects using blockchains transform the experience of time crafting a temporal dislocation that endows them with political agency. Blockchain offers a flexible structure that enables political functions resting on diverse economic systems and implements social relations and modes of interaction that perform non-capitalocentric values. The multiplicity of counter-hegemonic

articulations on blockchain questions sedimented practices and, concomitantly, these artistic projects explore new meanings about social institutions.

In contrast to Marchart, however, I believe that the political agency of Social Blockchain Practice Art is related to its capacity to pre-enact Agonistic pluralism, instead of the political, as Marchart analysis in his book *Conflictual Aesthetics* (2019). These practices work as the free spaces described by Törnberg (2021). Although both notions are related to the implicit conflictuality in the diverging interpretations of certain values, the political is the ontological dimension of antagonism, an irresolvable conflict between enemies. Agonism recognises the legitimacy of the conflicting interpretations and, as such, treats opponents as adversaries with whom it is sharing a common symbolic space and political association. Collaterally, this shift acknowledges the existence of contradictory propositions and the appropriate channels to voice dissent.

As this decentralised ecosystem grows with more proposals, these artistic projects are able to compose an agonistic multiverse unveiling a plethora of counter-hegemonic orders. By utilising blockchain as their tool to construct non-capitalocentric political and social imaginaries, these artworks explore diverse social relations that give alternative meanings to what hegemony is and could be. Social Blockchain Practice Art becomes dissent, experimental forms, and experiences that answer the existing hegemonic orders with their own alternatives to surpass them and, thus, they activate agonistic conflict and give rise to and pre-enact agonistic pluralism.

### **3.5.3 As The Embodiment Of Multiverses**

Hegemonic constructions are, by no means, reduced to traditional political institutions; they can be found in any place where a hegemony is constructed or reproduced, expanding the terrain of struggle to the multiplicity of spaces that are inhabited by civil society. Curator and scholar Cecile Sachs Olsen (2019) points out to the many scholars who have recognised the political potential of artistic practices to foster new imaginaries that reveal new forms of understanding, thinking and sensing the world around us (Bonnett 1992, Loftus 2009, Pinder 2011, Hawkins 2013, Rancière 2004, Olsen 2019). Artistic practices can imagine and

stimulate the development of new social relations and the elaboration of new worlds with different hegemonic systems. Correspondingly, diverse<sup>79</sup> subjectivities are embedded in artistic projects using blockchain and ultimately aim at replicating or dismantling a given hegemony. John Dewey asserts that art “strikes below the barriers that separate human beings from one another [and, in this way, the function of art] has always been to break through the crust of conventionalised and routine consciousness” (Dewey 1927/1988, p. 349) in order to see more clearly and critically.

Social Blockchain Practice Art is an aesthetic form of dissent, which explores ways that replace the social order in power by proposing multiple understandings of counter-hegemonic projects. To create a multiverse of agonistic potential, it benefits both from the technology and its influence on an affective level. On the one hand, the different technological assemblages can articulate a social structure that can pave the way to new social orders, politics, and economies (Hayes 2019, p. 66). Blockchain can, therefore, allow the creation and statement of different orders through its affordances, making them responsive to the different shared values of a community. Brekke believes that “a diverse economies approach to the political economic sensibilities of ‘blockchain’ helps to articulate diversities and potentials amongst blockchain projects” (Brekke 2019:39). In those lines, Mouffe finds in the pluralisation of hegemonies and the establishment of a multipolar world, the solution to avoid an “antagonistic form than in a world where a single economic and political model is presented as the only legitimate one and is imposed on all parties in the name of its supposedly superior rationality and morality” (2013:22). The technology can, hence, provide a resilient and adaptable structure that articulates social life otherwise, enabling a multitude of potential hegemonic systems to be put to work by a different community according to their shared social goals.

On the other hand, these artistic practices can potentially fix alternative meanings for their social institutions on an affective level, thanks to what Sholette refers to as Critical Autonomy. The potential for disruption is not one set of specific provisions, but a plural

---

<sup>79</sup> I use the term Diverse as Gibson-Graham do for Diverse Economic systems, as a way to refer to non-hegemonic, traditional, patriarchal values.

synergy of affects whose goal is to transform the existing hegemonic practices. As a result, artworks using blockchain function similarly to a Mock-Institution,<sup>80</sup> which Sholette defines as “an informally structured art agency that overtly mimics the name and to some degree the function of larger, more established organisational entities” (2015, p.1). Blockchain mirrors classic social institution through a DAO architecture, which can enforce rules through a smart contract and bypass traditional regulatory systems. An art project using blockchain could also propose their regulations echoing their own interpretation of the values that they aim to put to the fore. For instance, the practice of a value like democracy is not uniform and has different conceptions, and blockchain permits different interpretations using smart contracts and via token design. It could, consequently, take the shape of Quadratic Voting, which reveals collective preferences, or traditional One-Person-One-Vote, which exposes only the choice of a majority.

Blockchain is not a sweeping answer, it creates multiple options adapted to the specific desires of the community which takes part in that experiment. These artistic practices generate affective responses to the multiple frameworks using the technology as a tool to foster community engagement. In this way, they have the potential to convey the type of social relations sought by members previously united under different social movements (Melucci 1996). Therefore, these projects come to be political tools for an exercise of autonomy (Castells 2015) and, by virtue of their multiplicity, they generate an agonistic multiverse. Social Blockchain Practice Art’s capacity for disruption is thus related to its potential to fundamentally re-articulate the norms and institutions of capitalism and, with it, the concept of value.

It also provides the opportunity to account for all types of social interactions, and to move beyond property or scarcity to then propose a diverse economic system (Gibson-Graham 2016). However, Social Blockchain Practice Art does not offer a wide-encompassing

---

<sup>80</sup> The notion of para-institutionalism belongs to the legacy of alternative education systems led by artists which Beuys started and crystalised as Social Sculpture, as Lerm Hayes (2019) expressed. This form of instituting resonates with list of concepts that scholar Marsha Bradfield identified: “mock institutions” (Greg Sholette), “institutions of exodus” (Gerald Raunig), “monster institutions” (Universidad Nomada), “plausible art worlds” (Basekamp), “art sustaining environments” (Stephen Wright), “open organizations” (Critical Practice) or “undercommons” (Stefano Harney and Fred Moten). See Szreder et al. (personal communication, 2018).”



solution, it introduces polymorphic arrangements, which can provide different structures adapted to the values and desires of a collective. This context, in the words of Mouffe, “would acknowledge a plurality of regional poles, organised according to different economic and political models without a central authority” (2013, p. 22). This pluriverse will be composed by multiple blockchain structures that cohabit the same space of possibility, as a free space, acting in parallel, and proposing different interpretations of values in an agonistic manner.

These artistic practices introduce a new way of understanding politics, not as antagonistic frameworks but as coexisting proposals. They expose different commitments with alternative values, activating new social interactions that, potentially, do not reverberate capitalistic reproduction. These artworks create small-scale realisations of a future to come, providing a reparative moment of anticipatory societal imagination. By putting them to work, they perform an agonistic multiverse, revealing a plethora of counter-hegemonic orders that give us a glimpse of a future that has not been co-opted by economic principles of productivity and efficiency, where democratic principles are shaped according to preferences and not majorities, and where the emphasis on social surplus transforms the socio-political texture driving the community.

### **3.6 Conclusion**

*The master’s tools will never dismantle the master’s house* was the title that Audre Lorde chose for her intervention in a panel in 1984 at New York University’s Institute for the Humanities. She posed the following question: “What does it mean when the tools of a racist patriarchy are used to examine the fruits of that same patriarchy?” (Lorde 1984, p. 17). Lorde exhorted the audience to embrace difference, as it “is the raw and powerful connection from which our personal power is forged” (1984, p. 18). The difference that disempowers is also the source that triggers the imagination in search of alternatives to conceive the world otherwise. Systemic change comes with new meanings and relations, as old mechanisms cannot be repurposed without reproducing the same structures of power.

Difference is plural and diverse, and it needs imagination to be able to rehearse the myriad configurations that it could take. The political agency of Social Blockchain Practice Art is, in my opinion, its capacity to embody distinctive counter-hegemonic orders based on non-market values and, in this way, to create a multiverse with agonistic proposals.

Blockchain is a tool for imagination, and the structure that turns them into organised forms of dissent whose intention is to call into question precisely those sedimented practices they aim to subvert. By thinking through and with the plasticity of its affordances, artists can practice surrogated worlds-views and renegotiate the financial, political, and social hegemonic order.

As explained in Part II, Social Blockchain Practice Art becomes an expression of agonistic critical art that deepens the project of Institutional Critique and expands the medium of Social Practice. First, because its critique is attuned to the necessities and characteristics of post-digital society, providing a much more nuanced and profound analysis of the current techno-political complex. It can also overcome the institutional system of valorisation and foster an engagement that goes beyond the art world because of its formal experimentation, translocal participation, and cooperation. Like social art practice, it aims to affect social change and sustain new forms of collectivity stimulating social surplus. Acting like Mock-institutions, these artistic projects generate collective forms of identification that encourage an affective engagement with their embedded subjectivity.

Precisely because of that speculative approach, Social Blockchain Practice Art provides the experience of building a world they would want in preparation for a future to come. They become rehearsals of the *not-yet* that formulate new meanings for social structures and prepare new spaces of autonomy. Social Blockchain Practice Art offers the possibility of bypassing the logic of scale as much as the logic of time. Its political agency resides in its capacity to envision and put into practice new imaginaries that bring about counter-hegemonic orders organising a political trans-local community of agents.

Like Lorde's claim, these art forms embrace their difference and, consequently, they also introduce an irresolvable conflict, which Mouffe explains as *The Political*. Blockchains are their tool for imagination and their apparatus for dissent. Correspondingly, social blockchain practices become aesthetic forms of resistance that share their capacity for

prefiguration with social movements before them. As a result, they are capable of pre-enacting pluralistic Agonism, which grants them the ability to link the present with an unwritten future, and, in turn, to write a future through the practice of today.

## Part IV: Analysis of *White Papers on Dissent*

Sharing their name with this overall research project, *White Papers on Dissent* are the curatorial projects that put into practice and reflect on the social potential of blockchain technology and the role of artists in shaping this process. Here, in Part IV, I offer my analysis of these two curated projects that applied the knowledge acquired throughout this wider research project. This approach enabled a reciprocal process whereby practice and theory informed one another: the curated projects simultaneously communicated the research whilst further developing and deepening the discourse.

The first project, which took place in November 2019 at the Asian Cultural Centre in Gwangju in South Korea, asked how digital activism had influenced artistic practices with digitally mediated forms of coordination and transferred a prefigurative capacity. Based on this idea, the second project in October 2021, developed at Van Abbemuseum in Eindhoven in The Netherlands, focused on blockchain. It investigated the potential of the same temporal dislocation, now from the perspective of speculation, simulation, and remodelling; along with the exploration of new forms of social organising, in this case, using non-capitalist points of identification.

Part IV offers a different perspective on many of the subjects investigated to this point and thus enriches the previous investigation. To begin, when focusing on the project's first iteration, I will consider the relation between prefiguration and art after a moment of protest. I will then consider three different angles which became prominent during the weekend of events at Van Abbemuseum: the world-making capacity of blockchain, its ability to convey new economic forms *with* agency, and the potential to speculate on and rehearse new value forms. *White Papers on Dissent* thereby became an invitation to collectively imagine a world that has overcome the hegemonic capitalist discourse of value and organises alternatively: without surplus extraction, on the basis of a commons-oriented, diverse economic system. In this context, blockchain acts as the apparatus and is presented throughout the programme as a tool and enabler of those imaginaries. *White Papers on Dissent* pays special attention to

artistic practices using the technology and considers their capacity to pre-enact the political by composing cracks and fissures that represent a plethora of counter-hegemonic proposals that challenge the status quo. This analysis addresses problematics and potentials to offer a critical review of the findings in the curated projects, connecting them with Parts I to III.

#### **4.1 *White Papers on Dissent* at the Asian Cultural Centre in Gwangju**

This section starts by describing an exhibition that I curated at the beginning of this PhD project. It took place in Gwangju in South Korea in November 2019 at the Asian Cultural Centre (ACC). This curatorial project set the ground for my investigation into the imprint of digital activism in artistic practices after a moment of upheaval, and it explains my approach using curatorial praxis as a form of research.

In this section, I will focus on concepts such as prefiguration and the importance of kinship in social movements. These descriptions contextualise the curatorial process, which is later explained, emphasising how artists capture the spirit and workings of digital activist strategies. These notions will act as the ground to understand how blockchain could be used as a social structure.

##### **4.1.1 Practical Development Of The Exhibition**

From September to December 2019, I was awarded a research fellowship at the ACC in Gwangju. The centre's goal with the fellowship was to offer new perspectives on the museum's archive and, as a result, to produce an exhibition at Library Park, one of its main exhibition halls. My proposal focused on the recent history of South Korea and how protest and civil action had influenced artistic practices in the region.

However, once I arrived in South Korea, I realised that the institution's archive held no records from 1996 to 2017 that referred to digital activism. As a result, the exhibition assembled materials that compiled a history that was not previously represented in the state-run archive of the ACC. Research assistants Heeju Kim and Janice Chung compiled and translated raw materials on blogs, forums, and podcasts for this project. Naturally, this alternative archive called the public one into question and thereby, in Foster's terms, disturbed the symbolic order at large (2004, p. 22). This strategy is inspired by the critical potential of

archiving projects, for example, Sholette and Lippard's archive project Political Art Documentation/Distribution (PAD/D).

#### 4.1.2 Curatorial Approach: A Repertoire

Beyond the ACC's own lack of records, another problem arose due to the immaterial and transient nature of the digital content: how could we store and present temporariness? My solution was to use what I would like to call a repertoire as curatorial approach, inspired by performance theorist Diana Taylor (2003).

A repertoire is a system of transmission that underlines ephemerality and concentrates on the performative. My project researched the influence of the transient tactics of digital activism on the methods and approaches of artists after a moment of upheaval, and correspondingly, how their work turns into process-oriented and socially engaged actions. These artworks come to be acts of resistance and, as such, they become performative events that participate in the transfer and continuity of the social movement. As a result, these performances are systems of learning, storing, and transmitting knowledge acquired by the protest. I used office tables, computers, and tablets to display the digital materials related to each of the movements. These items were presented sequentially, the tables interlaced with artworks, which did not follow any chronological order. The audience moved around them without necessarily following the timeline, since my curatorial approach stressed the non-linearity and reach of the movements.

A repertoire is not the opposite of an archive: they are complementary practices.

Taylor explains that,

the archive includes, but is not limited to written texts. The repertoire contains verbal performances—songs, prayers, speeches—as well as nonverbal practices. The written/oral divide does, on one level, capture the archive/repertoire difference [...] insofar as the means of transmission differ, as do the requirements of storage and dissemination. (2003, p. 24).

As opposed to the repertoire, archives have been more distinctly associated with power. In *Archive Fever* (1998), Jacques Derrida expounds the relation to two Greek words: *Arkheion*, where documents are kept and interpreted, and *arkhē*, which refers to “there where authority,

social order are exercised.” In turn, in the *Archaeology of Knowledge* (1974), Michel Foucault argued that the archive couldn’t be reduced to a mere storage room for statements from the past. This is because an archive not only collects and preserves certain statements, which will, consequently, be transmitted, it also produces certain conditions, which will determine whether it will be transmitted in the future at all.

An archive, consequently, limits what cultural memory could be. It establishes an item’s gradation, where some parts “deserve” to go into this aristocracy of *archivable* knowledge. Rebecca Schneider explains that this ranking is “predetermined by a cultural habituation to [the] patrilineal, west-identified (arguably white-cultural) logic of the archive” (2001, p. 100). In contrast, Taylor clarifies that the digital and the visual fields are set apart, although always enmeshed with the discursive, which is privileged by Western logocentrism (2003, p. 5).

By adopting the concept of a repertoire, I was able to investigate the immaterial and reciprocal relationships between the artworks and local social movements. Considering the lack of materials related to digital activism in ACC’s archive, this also implied that these knowledges were not “worthy” of being stored or that they contravene the national (ACC is a national museum) and hegemonic history-telling. Hence, using a repertoire become a both a political gesture and practical tool that captured the nebulous ideas and mind-sets that impact the production of an artwork, and how, in turn, these artistic practices, even after the protest ends, carry them on. This loop of affects cannot be encapsulated in an archive, as the enduring materials become reductive representations. A repertoire, on the contrary, expands the meaning of knowledge itself since it incorporates “all those acts usually thought of as ephemeral, non-reproducible knowledge” (Taylor 2003:20). Therefore, it is able to enact, continue, and transmit those acts of embodied memory, keeping them alive through their repetition.

#### 4.1.3 Critical Analysis

The first iteration of *White Papers on Dissent* explored the tumultuous last twenty years in South Korea through protest movements and civil actions. This country has stories to tell of development and progress, and histories of colonisation, uprising, and resilience. These circumstances introduced a process of Compressed Modernity<sup>81</sup>, (Chang 2009, p. 35) where

---

<sup>81</sup> According to Chang, this is “a civilizational condition in which economic, political, social and/or cultural changes occur in an extremely condensed manner in respect to both time and space, and in which the dynamic

social inequality and oppressive political regimes prompted a chain of moments of civil unrest. In these, thanks to a much higher level of digitalisation than Western countries, digital activism became the driving force in the organisation of the social movements. As technologist and scholar Nishant Shah mentions, already in 2010, there is misconception around the narratives circulating about digital activism, as this field has been more researched in Western countries. This context has led to a tacit understanding where digital technologies are “looked at as being seamlessly exported from the West to the East, without any attention given to the geo-political contexts and socio-cultural changes that accompany this penetration of technologies” clarifies Sha (Shah 2010, pp. 130). The Korean context comes to exemplify this rich digital infrastructure and how it has permeated the day-to-day routine. As the terrain of the struggle spreads out into the digital, immediate connectivity and affective connection created a powerful movement not united by identity politics or representation constructions, but through shared goals and values.<sup>82</sup> Activists appropriated digital technologies as their means of persuasion and mobilisation, which enhanced a sense of kinship brought by mesh working, as explained in Part I in chapter 5.2.

### ***Digitally Mediated Social Coordination***

In Part I, chapter 1.5.3, I considered the composition of New Social Movements and how they organised using meshworks, which function as a local network topology where the infrastructure nodes connect directly, dynamically, and non-hierarchically to self-organise and self-configure. Meshworks are non-linear, rhizomatic structures, where elements are linked together through strong mutual relations. They were used to raise awareness and coordinating the protests. In this way, incessant online participation over tweets, Facebook posts, or groups in Telegram brought endurance to the movement onsite. Artists emulate these practices: they work on a mesh to create a community around them. These systems imply the development of kinship amongst peers.

Artistic practices after a moment of protest acted likewise, stimulating the building of alliances in the face of crisis using P2P collaboration, online participation, or crowdsourcing

---

coexistence of mutually disparate historical and social elements leads to the construction and reconstruction of a highly complex and fluid social system” (Chang 2009, p. 35).

<sup>82</sup> As explained in Part I, this social base responds to the characteristics of New Social Movements described by Melucci.



their materials. The outcomes are manifold, though all create systems of knowledge production in epistemic crowds, meaning groups of like-minded participants sharing skills and pooling resources. The artists, whether in the digital or physical sphere and its myriad of compositions, collaborate to advance knowledge through practice. The nodes are bounded through their desire to achieve a social goal, which enacts, prolongs, and deepens the yearning for change from the social movements that precede them.<sup>83</sup> This prefigurative capacity activates novel forms of being together, whereby artistic projects reach out of the art institution to turn into process-oriented socially engaged actions, which encompass the same activist mind-set and tactics.

*White Papers on Dissent* looked into the immaterial imprint of digital activism in art: how, in spite of the transient nature of a protest, it impresses and transforms the methods and intentions of artists. In this manner, this repertoire delves into a new language that speaks about protest and denotes the creative power of a new generation that understands politics and poetics anew. The exhibition at ACC was composed of digital materials that had a pivotal role in the organisation of the movements, from websites like Strikenodong.com from Telecommunication Taskgroup for General Strike (TTGS), blogs on Daum and posts on Ohmynews, to podcasts and live-streamed news clips from Newstampa.<sup>84</sup>

The exhibition also brought together four artists whose work came to depict the complex reality of South Korea after twenty years of digital activism. These artistic projects are embodied knowledges that transmit the intentions and workings of the social movements that transformed the country. They enhance, reflect, and propose new systems of relations, which give rise to new political stances and forms of doing politics. Ideas of community and public opinion are always in the background of these projects, and become acts of resistance, precisely by questioning the conditions of public debate.

---

<sup>83</sup> This is explained through the New Movement Theory I outlined in Part I. This theory considers the social base, which is not built by a homogenous group, arranged by one-dimensional individuals. In it, collective identities are conceived as socially constructed (Hunt, Benford, & Snow 1994; Meyer & Whittier 1994). “Hence, this polymorphic group is not defined by a unitarian characteristic, but all these different identities are experienced at the same time, dialectically and related through manifold combinations and identities (Collins 1990; Morris 1992; Omi & Winant 1986; Taylor & Whittier 1992).”

<sup>84</sup> These materials are all collected in the Appendix.

### ***The Transference To Art***

Unavoidably, digital activism has permeated contemporary art and inspired a new generation of artists to take action. And, reciprocally, as I mentioned in Part II and considering Yates McKee's findings in *Strike Art* (2017), the workings, representation and development of protests became entangled with artistic practices, which became unavoidable features in their praxis. McKee analysed how Occupy emphasised embodied experiences of sight, sound, and touch to present political claims against the status quo. They helped to construct a collective imaginary that exceeds the musicological enclosure, art is understood as political force (McKee 2017, p. 286).

In South Korea, critical art adopted some of the same tools and mind-set brought by the uprisings through digital activism, and sparked distinct aesthetic forms, which emulate digital activism and replicate its modes of action to enhance commitment. In this way, these practices set off paths towards new political and economic pursuits, becoming, thus, acts of dissent in their own right, as McKee anticipates. At a moment of struggle, activists and artists are able to envision substitute realities, forms of association, and novel economic systems. Consequently, digital activism and the following art practices share a prefigurative capacity and ability to develop kinship via radical technological uses. Online, they build resilient structures for sharing and generating collective knowledge, which support their endeavour online and offline to reach their social goal. Digital P2P collaboration turns into a method to catalyse subversive projects for alternative futures, whilst it brings endurance to the project onsite. This system creates bonds between co-actors, which are strengthened digitally and continue onsite, dissolving, in this way, the borders between both realms. To explain the above-mentioned concepts and ideas, in the following I will explore the exhibited works in more detail as a way to reflect on how the artistic practices reverberate the digital activist practices.

### ***White Papers on Dissent at ACC***

The exhibition at Asian Cultural Centre (ACC) presented archival material together with the work from Garam Kim, Part-time Suite, Unmake Lab and Kook+. The artworks were

distributed throughout the exhibition without following a chronological arrangement, as a way to introduce to the public how the cumulative processes of dissent had informed the artists' praxis. With very different outputs and working strategies, the artists critically engage with the structures of power, in a similar form as the second wave of Institutional Critique, and especially target communication systems, like new media art. The artworks also represent how digital networks of cooperation generated systems of kin in the participants, which remind of the workings socially engaged practices analysed in Part II. With this selection I intended to explore how the social imaginaries created during the uprisings trickled down the artistic practices and, how, in turn, they became acts of dissent holding prefigurative potential.



Figure 8 Installation view from *White Papers on Dissent* at ACC Gwangju, November 2019, showing Garam Kim, *4Roses* (2014–ongoing). 3-channel video, colour, sound; 19 min.

Using robotic voices and whimsical music samples, **Garam Kim**<sup>85</sup> composes songs made out of a selection of comments on the news stories that were trending online and which tapped into different political events in South Korea: ranging from Korea's #MeToo movement, peace talks between North and South Korea, to the cryptocurrency bubble burst in

<sup>85</sup> I have emphasised the name of each of the artists to ease readership

the Korean market. These songs become an informal repository of temporariness, a way to encapsulate a transient state of discussion in a memory pill that one can buy from major outlets, such as iTunes and Melon Music. The project is continuously available on those platforms and on her website, and it also coexists with different presentations in the exhibition setting (a 3-channel video work, as a book compiling the lyrics, and a performance as a DJ set). *4Roses* was presented on three monitors displaying the lyrics in both English and Korean, while the music was played on speakers, populating the environment of the exhibition.

The colourful and attractive design of the covers *disguised* the political undertones of the songs, which Kim uses to critique the epitome of citizen journalism<sup>86</sup>: public online commentaries. The artist crowd-sourced the lyrics of *4Roses* from anonymous online commentators with divergent opinions. According to Ulrich Dolata and Jan Felix Schrape (2018), social media operates as a system of shared awareness. Comparably, comments on online newspapers also help “bringing together crowds with similar grievances and feelings of discontent. They allow users to monitor the reactions of others towards issues of common concern and to gauge public opinion” (Kavada 2018, p. 111). Considering the reliance on citizen journalism in South Korea, by exposing the supposedly dominant and contradicting visions of the news of the month, the artist also questions the limits and limitations of online forums and their latent political agency. Through this duality, Kim conveys the contradictions and synergies of public opinion today, which correspond to the shift in the composition and workings of social movements of digital activism. These groups do not follow traditional political constituents such as unions or political parties and no longer are associated by forms of representation. In this case, the identity of the group is conceived as socially constructed (Hunt, Benford, & Snow 1994; Meyer & Whittier 1994), and are related through manifold combinations and identities (Collins 1990; Morris 1992; Omi & Winant 1986; Taylor & Whittier 1992). In the same manner, artist Kim explores the multiplicity of the public opinion and the antagonic representations instead of agonic ones. For Mouffe, in agonism, the

---

<sup>86</sup> Citizen Journalism was first developed in South Korean news portal Ohmynews. Individual posts have triggered major political events, such as the Candlelight revolution in 2002.

we/they relationship that recognises the legitimacy of their opponents. “They are 'adversaries' not enemies”, as she points out (Mouffe 2005, p. 20). Therefore, for her, democracy should aim at transforming antagonism into agonism. Kim’s work reflects precisely on the incapacity of this transformation and how today’s media strive to continue this polarisation to profiting for the kin-making ability. To shape a community, one needs kinship, as it “implies a set of common values, and it is a work-in-progress in the movement, since most people come to it with their own motivations and goals” (Castells 2015, p. 253). The lure of creating communities of followers is used to their own benefit, both in terms of money and influence. The incessant online participation is used as way to raise awareness around a political issue, however, in this case, it is used to underpin the structures of power instead of debunking them, as social movements would imply.

The artist collective **Part-time Suite** continues with this idea, focusing on the role of media in the formation on communities. In their video, a camera moves alongside the tunnels where telecommunication cables flow, a young voice asks the audience to subscribe while guiding us through this Internet under-world.



Figure 9. Exhibition view from White Papers on Dissent at ACC Gwangju, November 2019, showing Part-time Suite, People, the next People (2017). HD video, colour, sound; 25min.

Once outside, we only see deserted environments and empty amphitheatres. These locations are the archetype of collective space but their bareness and offline-ness sits in contrast to a playful voiceover of the all-too frequent chats in tutorials, online gaming, or live-streams. These apparently unrelated features put forward a vision of the present from the eyes of a younger generation of digital natives, where relationships are sustained digitally in an immaterial playground on the basis of affinities, regardless of gender or social status. This reminds of the composition of the New Social Movement by Melucci (1996) in Part I.

The video continues displaying different aspects of the same post-digital condition: masks in contrast to avatars, or tutorials versus the physical act of doing the task. The work of Part-time Suite resonates with the characteristics of the technological mediation, immediate collectivity, and affective connection described Claus Pias (2016 p. 24). The artists appropriate the double nature of the phone as an empowering and repressive tool, which



enables them to convey the contemporary South Korean social texture, entwining online and onsite through a series of digital rituals of hyper-connection.



Figure 10. Exhibition view of *Part-time Suite, People, the next People* (2017). Video HD 25 min.

The artwork pays homage to Minjoong Art, a style developed in the 1980s in South Korea, which exposes the desire for democracy through collective action, claiming political change with mural paintings, banners, and pamphlets. Minjoong Art was a response to the Gwangju Massacre of 1980 and was meant to depict reality and enact protest via collective artistic practices. The murals were present in many demonstrations and political rallies, which reminds of how art was used in Occupy, as McKee argues in *Strike Art*; and dissolve the boundaries between art and life, as Beuys proposed. In the video, the artists capture the style's iconic artworks through the lenses of an iPad and iPhone. This gesture feels like peeking into the looking glass, opening up another outlook towards a different reality that uses the same references but with contradictory approaches. In this way, it unveils a world at

another juncture, where surveillance and constant digital exposure generates a new society of control.

**Unmake Lab's** practice reflects on the post-digital condition and engages with digital tools in the same way as Tactical Media did in the 90's. The work in the exhibition is a response to the ubiquity of control systems in South Korea, which peaked in 2015, right after President Park Geun-hye was elected. She implemented a widespread digital control policy in which, according to Koo (2015), started policing the Internet, collecting information from users and increased closed-circuit television cameras in the cities across the country. Unmake Lab draws attention to this problem, and critically and publicly reflects on the sociocultural role and function of both technologies and contemporary art practices.

The artists used open-source technologies to engage with a community both online (on their website and during the exhibition) and offline (during the workshops) to compose a structure which advocates for more privacy online, in a fashion that reminds of Tactical Media. Their projects replicate open-source collaboration in CBPP projects to spark off kinship-relations. They are committed to the development of networks of likeminded digital activists, continuing, in this way, the collective formations inherited from previous social movements. Hence, it could be considered Holmes's extra-disciplinary investigation, which facilitate new forms of expression, analysis, cooperation, and commitment (Holmes 2009, p. 54). In Unmake Lab's work one can observe who two overlapping waves of Institutional Critique.

One is an inwards movement that addresses the particularities of the medium from within, in this case, they analyses the images that trigger surveillance mechanisms of AI and playfully obfuscate them. The other wave looks outwards, trying to procure a change outside the realm of action, which addressed the power structures at large, namely, the state of control in South Korea.





Figure 11. Exhibition view from White Papers on Dissent at ACC Gwangju, November 2019, showing Unmake Lab, Smart Body (2019). Video loop, digital pictures; 9 min 43 seg

In *Smart Body*, a female figure moves in a series of apparently unconnected exercises. With a black backdrop and devoid of any context, those actions are strangely familiar, albeit completely bizarre: she is performing happiness. *Smart Body* was inspired by the Dubai Happiness Agenda,<sup>87</sup> a smart city programme dedicated to measuring satisfaction. Using AI, this report compiled a selection of the best performing gestures displaying happiness. To develop their own version of it, the artists used their friend circle to supply them with images uploaded to social media. The goal was to develop a pseudo-scientific method to evaluate their version of happiness, like Frank and Lillian Gilbreth's<sup>88</sup> study on labour gestures and Paul Ekman's study on universally shared facial expressions.<sup>89</sup> Using open-source facial recognition software, Unmake Lab selected the better-performing images, which were later enacted in the video.

However, unlike Gilbreth's and Ekman's studies, the artists' intention is radically different as they create a *manual of resistance* using the same happy gestures to deceive the ever-present surveillance. Unmake Lab carry on the previous social movements' ambitions and channel the disaffection against the structures of power—namely, massive state surveillance—and create a mechanism that promotes individual emancipation. Under the aegis of an artistic project, they are able, just like Melucci (1989) pointed out when referring to New Social Movements, to expose the socially constructed nature of the world and the possibility of alternative arrangements. This is precisely what makes this artwork an effective political tool: the apparent lack of a political tone makes them better able to subvert the orders of the system.

**Kook+** takes a much more hands-on approach: *Hacking Territory* is a process of collective research that aims at exploring different imaginations and practices about physical territory, operating systems (such as the state), and the spatial conditions of cities. Kook + is a group led by Chankook Park composed of artists, architects, IT company operators, writers,

---

<sup>87</sup> This is a project by the Dubai government. On the website, it states, “guided by the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of UAE and Ruler of Dubai, we are fuelling a city transformation to happiness. Adopting a globally unique, science-based and methodical approach, we are measuring, impacting and sustaining happiness for the whole city”

<sup>88</sup> See <https://gilbrethnetwork.tripod.com/bio.html>

<sup>89</sup> See <https://www.paulekman.com/resources/universal-facial-expressions/>

planners, game makers, and blockchain researchers. This network of collaborating partners strives to envision new territory formations from the ruins of the declining urban space. They intend to circumvent the extractivist techniques of neoliberalism and escape the suffocating urban environment in South Korea.



Figure 12. Exhibition view from White Papers on Dissent at ACC Gwangju, November 2019, showing Kook+, Hacking Territory (2019–ongoing). Video and photo documentation; 33min.

*Hacking Territory* started looking into two small towns that are on the brink of disappearing because of things like a lack of resources or an ageing community. Each of the participants looked into different angles (economic, technological, political, etc.) to develop a potential structure that could support an alternative form of social production. In the exhibition, there was photo and video documentation from their field trips, discussions, and labs. Through these hands-on events they try to convey alternative imaginaries of these locations, using art as a force of radical imagination and direct action that in its deepest dimension asks us: how do we live?

The working method of the collective is reminiscent of a CBPP, which is “characterised by collective ownership and management of resources, flat coordination, self-identified and permissionless contributions and the production of social value” (Pazaitis, de Filippi, & Kostakis 2017). Their ambition is to establish an autonomous structure on a vacant space, which could reflect on the fluid and nomadic living conditions, through an understanding of layers of historicity present in the inhabited space.

*Hacking Territory* becomes a free space, a small-scale niche where to try potential societal transitions. In them, experimentation is “shielded from market competition where radical, path-breaking innovations could be developed” (Thörnberg 2021, p. 87). Niches therefore act as a protective buffer to secure, nurture, and empower (Raven, Kern, Verhees, & Smith 2016, Smith and Raven 2012). They provide a proactive space where prefigurative innovation can flourish.

Using slow-paced, careful encounters, their ambition is to subvert the same socio-political issues as the previous social movements. This alternative *modus operandi* embodies a prefigurative attitude, a “conflation of the means and ends of political action in the daily organising of social movements” (Maeckelbergh 2016:122). By its very nature, Kook+ ascribes to the study of Hirsch (1988) with regards to New Social Movements in post-Fordist societies, which expound their resolution to overcome alienation and regulatory frameworks by encouraging individual agency in the process of rebuilding a society through profoundly democratic form.





Figure 13. Exhibition view of Kook+, Hacking Territory (2019–ongoing)

#### 4.1.4 Summary.

The first iteration of *White Papers on Dissent* strived to depict relations between digital activism and contemporary art through a repertoire. The artworks selected came to embody many of the characteristics that define NSMT, both in terms of organising as well as values. First, artists challenged the same socio-political system, making manifest conflicts in the political and economic supra-structures, like Melucci (1996) anticipated. Their artistic practices epitomise empowerment and claim self-determination against oppression, inequality, and control, as Manuel Castells (1983a) asserted. Moreover, as Brandt (1986) explained with regards to protests, they come to signify a meta-political challenge to modernity, since they expand and deepen the project of digital activism that engendered a new historical type of protest.

After a moment of upheaval, artists self-organise in a non-hierarchical manner and establish epistemic crowds, which are united by neither representation constructions nor identity politics, but through shared values and goals (Buechler 1995, p. 456). It is precisely

this feature that provides their prefigurative capacity, which translates into the development of kinship-relations that prolong and strengthen the yearning for change from the social movements that precede them. As a result, this exhibition sought to spotlight the ephemeral digital-activist organising tactics of today's social movements, as well as re-conceptualising the artistic practices that followed as act of dissent themselves.

This curatorial project uses an artistic research methodology, meaning that “the primary focus of the research is to advance knowledge about practice. It involves an exploration of existing working practices and, through studies and reflections, aims to produce new knowledge that it is useful for that practice too” (Candy & Edmonds 2018, p. 145) . Therefore, its aim is to generate a new knowledge that will make significant contributions both scholarly, and effectively, creating a body of work (i.e. this book) that will bring to the fore the political potentialities and influences of the project on a larger scale.

This analysis of practice is contextualised with the knowledge acquired in Parts I to III, and especially focuses on the prefigurative capacity of art and its potential to transform social imaginaries. The artworks in the exhibition are interlaced with research material, blogs posts, podcasts, and articles that describe the political context of South Korea, and exemplify the role of digital activism in the creating a shared imaginary. This backdrop is used to better understand the role of the artistic practices, which are extra-disciplinary practices that critically addressed the structures of power along the medium from within. The artistic practices carry the same tactics of the previous digital activism. Naturally, they do it with difference approaches.

Whereas Garam Kim and Part-time Suite critically engages with the nuances of the communication networks in the post-digital society; Unmake Lab and Kook+ work directly with the same structures and, with a hand-on tactics, they unveil those mechanisms of control with also giving an alternative to it. In this way, both attitudes reflect on the workings of Institutional Critique and move towards socially engaged practices that focus on technologies and milieu for connection. In this way, one can observe the potential role of art in the formation of a community and thus, how they build meshworks of epistemic crowds constructing social movements. In their endeavour, these practices represent social

imaginaries and toy with the idea of offering free spaces. This factor will be later further developed by the practices using blockchain, but here we already see how the desire for connection holds a prefigurative attitude.



Figure 14. Installation View

#### **4.2 *White Papers on Dissent* at Van Abbemuseum during Dutch Design Week 2021**

The second iteration of *White Papers on Dissent* took place at Van Abbemuseum (VAM) in Eindhoven during Dutch Design Week from October 22 to 24, 2021. It aimed to disseminate and to expand the knowledge encompassed in Parts I to III through artist talks, panel discussions, workshops, and a podcast. Using a curated discursive project became a form of research in itself and a way to advance knowledge through practice. This enacted investigation was framed as a system for collaborative knowledge creation and transmission engaging with the myriad uses and potentials of using blockchain to undo social dynamics. The project intended both to disseminate the research findings presented previously and to expand them through practice. The hands-on events and exchanges in the discursive

programme between public and participants provided rich, new outlooks on the subject matter, which are reflected in this section.

#### **4.2.1 Practical Development Of The Project.**

The second iteration of the project passed through different phases and started taking shape in the winter of 2020. At that point, I had contact with Maria Hlavajova from BAK in Utrecht but, at that time, the project was not far developed. Later, in October 2020, I obtained a grant from Creative Industries NL, which made the project feasible. In March 2021, after a meeting with Charles Esche and Christa-Maria Lerm Hayes, the project became part of the programme of Van Abbemuseum. Unfortunately, due to the museum's scheduling pressures and other programme commitments, the production did not start until August 2021. Despite the tight timeline, and a change in producer along the way,<sup>90</sup> the project managed to take place on time and with minimal changes.

The institutional context seemed a perfect match for the project, potentially bringing engaged visitors to the programme. VAM is one of the leading museums in The Netherlands, known for its political engagement and commitment to diversity. Dutch Design Week is, in turn, the largest design event in Northern Europe and attracts about 350,000 visitors.<sup>91</sup> However, the overwhelming number of events during Dutch Design Week translates into disperse visitors who attended one or two talks. Furthermore, Covid regulations<sup>92</sup> (or the lack thereof) made it difficult to bring people to the physical museum, both in terms of speakers and visitors. Therefore, from the beginning it became clear that the event would need to become hybrid.

---

<sup>90</sup> VAM re-organised their whole collection during the pandemic and opened the new installation in the second week of September. This situation, together with the backlog post-pandemic, substantially increased the workload of the museum's staff. The combination translated into a challenging context in the museum, where all staff felt over-worked.

<sup>91</sup> See <https://ddw.nl/>

<sup>92</sup> At the beginning of October 2021, the Dutch government had lifted almost all restrictions, meaning that visitors could go without masks and social distancing was not enforced. By the time the event took place, Brabant was recording high numbers of infections and the hospitals were reaching their highest admission rates.



The decision to choose a discursive format instead of using exhibition display also became necessary due to the immaterial nature of the technology and artistic practices. This context was further compounded by the still-nascent state of the technology. This context was deemed necessary to explain the different threats and possibilities of the technology together with delving into prospective uses.

All the programme was recorded and live-streamed, with some participant contributions pre-recorded, and the whole programme later became a podcast. In some cases, like the panel on “Blockchain and affects” with curator Daphne Dragona and media theorist Shintaro Miyazaki, it turned into a great collaboration: during the month and half before the event, we exchanged thoughts and questions on a shared document. After almost 12 written pages, we decided to record the text as an interview and we are now trying to find ways of publishing it.

In other cases, the opposite happened: working with the artists Black Swan became extremely difficult and it ended in a complete change to their project a week before the event took place. Although the collective had participated in different biennials and events at Kunsthallen, they were unfamiliar with museum regulations. They asked to have strobe lights and a smoke machine in the halls, along with tables or flip charts in the collection exhibition. Two weeks before, it became apparent that we couldn’t develop the original idea, a nine-hour hackathon at the museum, and it was reduced to a four-hour performative dinner, with resulting organisational and budget issues. Although the artists were not entirely happy with the result, the people who attended were very engaged and provided positive feedback.

The hybrid nature of the project created an unexpected type of engagement. It had a strong presence online, and in the weeks leading up to the event, I received many emails from people around the world. This translated into a large online following, which I believe was partly due to the topic of the event, but also due to a slow Covid-related transformation of the museum audience, who now lean towards following events online via live-stream or podcast. These practical features set the tone of the experience and the form of interaction in *White Papers on Dissent*.

#### 4.2.2 Critical Analysis.

With *White Papers on Dissent* I wanted to shed light on the potential uses of blockchain from a social perspective, using contemporary artistic practices to embody its workings and, thus, facilitate new forms of knowing and disseminating knowledge. To do so, I organised three panel discussions,<sup>93</sup> two artist talks,<sup>94</sup> and three participatory events.<sup>95</sup> Over a weekend, these events reflected on both the prospects of the technology and its potential pitfalls. A tone of wariness populated the discourse of all participants, who ranged from artist collective Black Swan, architect Maksym Romanikov, developer Saraswatti Subarnaman, to media theorist Geert Lovink, as well as digital activism expert Emiliano Treré. By bringing together this diverse selection, I aimed to convey the multiplicity of uses and perspectives about the technology and intended to create a trans-disciplinary dialogue to consider the relations between the technology and the commons, activism, affects, and governance.

---

<sup>93</sup> The participants, panel titles, and dates were as follows: E. Bordeleau, M. Rokmaniko, and G. Z. Zhang, “Blockchains and new governance” on October 22, 2021, available at <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-commons>; D. Dragona and Shintaro Miyazaki, “Blockchains, affects, and affordability,” on October 23, 2021, available at <https://www.whitepapersondissent.xyz/conversation/blockchains-affects>; G. Lovink, D. Rozas, and S. Subarnaman, with B. Cueto as moderator, “Blockchains and commons” on October 23, 2021, available at <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-commons>; B. Bodó, L. Blazic, A. Rutherford, and E. Treré, “Blockchains and digital activism” on October 23, 2021, available at <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-digital-activism>.

<sup>94</sup> The two artists talks were as follows: C. Bowden, L. Lotti, and P. Rafferty, “Black Swan” on October 22 (2021), available at <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-commons>; A. Yin, “Liquid dependencies theory” on October 22, 2021, available at <https://www.whitepapersondissent.xyz/panel-discussion/blockchains-commons>.

<sup>95</sup> Ailie Rutherford on October 23, 2021, available at <https://www.whitepapersondissent.xyz/artist-talk/allie-rutherford>; Black Swan on October 22 available at <https://www.whitepapersondissent.xyz/workshop/hackaton-the-assets>; Aiwen Yin on October 22 available at <https://www.whitepapersondissent.xyz/workshop/on-liquid-dependencies>

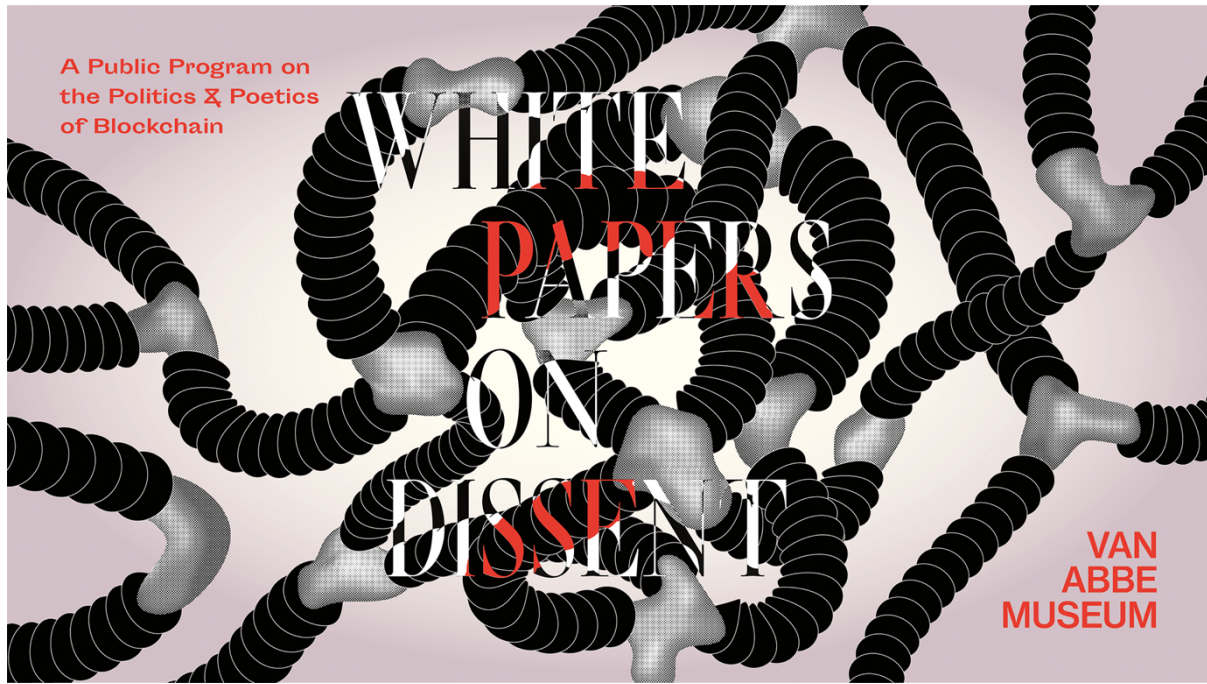


Figure 15. Poster and Advertising used during the DDW

Differently from the previous section, after analysing the discursive programme, I will now pinpoint three critical angles: the world-building capacity, the ability to foster economies with agency, and the role of pre-enactment, simulations and rehearsals. These aspects, although previously touched on, are tackled from new perspectives, enriching this research with the experiences of the voices that shape the discourse about blockchain today. To do so, I assembled case studies and interlocutors, many of which I already introduced in Parts I to III, and whose expertise was pivotal to develop my argument. Then I went to describe the current state of affairs to then work through the discourse to add original elements; that is: reframing blockchain as social apparatus. In doing this, I brought this discourse further into curatorial debate and developed a format that could include an audience to, hopefully, have a societal effect.

My previous research was fundamental when selecting the speakers and conveying the transdisciplinarity that populates the blockchain ecosystem. My goal was to the ideas present in Parts I to III and to expand on the possible outcomes and threats. Naturally, this implied changing the method for this iteration from an exhibition to a discursive project,

which could better encapsulate the changeability, immateriality, and sometimes (im)maturity of the technology.

***World-building in blockchains.***

In the panel on “Blockchains and digital activism,” law scholar Balazs Bodó, who specialises in blockchain, explained the transformation in the languages of utopia, noting that “in the early 2000s to 2010s, social utopias were written in the language of copyright licenses, saying that if we share with each other any digital content or knowledge, then everything will be dandy, right?”<sup>96</sup> The current disillusionment with Web 2.0 makes it hard to believe that Copyleft was ever the paradigm of technological utopia. Nevertheless, it continues to exemplify how the technology encapsulates the longings of a community at a point in time, considering it a device that can put forward an improved version of a near future.



Figure 16. View during one of the Artist Talks with Black Swan Collective

---

<sup>96</sup> Unless otherwise noted, the comments in the following are derived from these experts’ opinions as offered in the project’s panel discussions, artists talks, and participatory events.

This, in turn, serves to illustrate how blockchain, as does any other technology, holds a world-building capacity, becoming, in turn, a tool for radical imagination. In *White Papers on Dissent*, many speakers argued for the *worlding* capacity of blockchain, referring therewith to the role of imagination in the development of new forms of alterity that are grounded in the affordances of the technology. This section identifies several angles related to the world-building potential that became apparent throughout the discussions at VAM. First, the function of the language of utopia and the role of speculation, and second, the desire to redistribute power and its potential administering commons, together with the difficulties of adoption.

### ***The language of utopia in blockchain.***

The role of language became an important perspective when analysing the power of blockchain. In the panel “Blockchains and digital activism,” Tréré identified blockchain as a rhetorical device, explaining that “usually activists can use technologies as tools to fulfil some political objectives. But also, technologies are used discursively as rhetoric devices that can be mobilised to legitimate or open up horizons of possibilities.” In this case, as I have argued in this book, thinking *through* blockchain constructs new social imaginaries.

Over the years, technology has enclosed waves of utopian thinking. In particular, in the same panel, Bodó identified three B’s: Barlow, Benkler, and Bitcoin. As Bodó further explained, in 1996, John Perry Barlow published *The Declaration of Independence of Cyberspace*, which was the first libertarian manifesto about the Internet.<sup>97</sup> Ten years later, Yonkai Benkler put forward the idea of Commons-based Peer Production in the Web 2.0. Third, in 2008, Bitcoin, the paradigm of Web 3.0, promised that within this technological foundation, social utopia will happen. These changing ideals illustrate the notion of Magma by Castoriadis (1997), which represents the ever-changing nature of an imaginary, since any social form is only a temporary solidification of a shared radical imagination.

---

<sup>97</sup> See <https://www.wired.com/2016/02/its-been-20-years-since-this-man-declared-cyberspace-independence/>





Figure 17. View of the Panel Discussion "Blockchain and Commons"

Whereas Bodó thought of blockchain as the language of today's utopia, in another panel on "Blockchains and new governance," artist Gary Zhexi Zhang and crypto-economics expert Erik Bordeleau talked about the necessity of speculative narratives to endow blockchain with the ability to change them. In a similar vein, I previously noted how *lex cryptographica* acts like the abensourian notion of utopia: a "seduction, a stimulus to present action" (Abensour 2017:47). Accordingly, the technology enables a form of simulacrum, which "opens a new career to becoming and makes possible the invention of the new" (Abensour 2017:47). The world-building capacity triggers a multiverse of agonistic proposals but, as Zhang wondered, "how do you get people to buy into the Cambrian explosion of these micro-tech-narratives?" The response was inevitable: speculation. Bordeleau explained to the audience that, in an interview he conducted with a financial venture capital attorney, he said that "profit needs to be imagined before it's real." This dislocated temporality comes to be a productive asset in the language of imagination, functioning analogously in prefiguration: it replaces the temporal separation between today's struggle and future goals.

***Redistributing power? Social coordination in commons communities.***

To me, the inception of blockchain technology, the 2008 white paper from Satoshi Sakamoto was born out of anxious hope and intended to create an alternative to the world of finance. For many, as developer Saraswatti Subbarnaman recounted for the panel “Commons and blockchains,” it was a movement. Subbarnaman explained her experience participating in Occupy<sup>98</sup> in New York and explained how, for her, the technology became an embodiment of its aspirations, so that “if we decentralise banks, we would be able to redistribute power!” If we go back to Part I, one could see how this assertion was, in theory, possible, as decentralised systems could embed alternative value systems. However, she also noted “we were sorely mistaken.”<sup>99</sup> The praxis of decentralisation does not necessary always entail distribution of power. By being decentralised, blockchain is not automatically fairer. In Part I, we have seen the many threats that the technology needs to sidestep. Subbarnaman acknowledged that there might be slight redistribution of power among people who have access to the technological know-how, there is certainly not any redistribution of capital. In the same line of thought, Brekke has pointed out that this is a mere swapping of intermediaries, or even worse, just adds an extra veneer of intermediation and complexity (2018, p. 61). However, I would like to stress that the potential remains: it could re-address inherent power dynamics, as Rozas et al. (2018) propose. Hence, what one can affirm is that it holds the potential for change through its *worlding* capacity<sup>100</sup>. This ability to dislocate time through *lex cryptographica* creates a suspended time of possibility where one could

---

<sup>98</sup> Many of the examples of in this book reference back to Occupy as a change of paradigm, whether from the perspective of the arts and Mckee’s perspective on *Strike* Art, or from the technology and the development of blockchain as reaction to the subprime crisis.

<sup>99</sup> Unless otherwise noted, the comments in the following are derived from these experts’ opinions as offered in the project’s panel discussions, artists talks, and participatory events.

<sup>100</sup> That is especially important when we talk about artistic practices and the role in the development of the technology

design a future through the implementation of a set of rules in the present on a smart contract level. This situation is inherently related to the way it can reconfigure social coordination.



Figure 18. View of the Panel Discussion "Blockchain & Governance"

In *White Papers on Dissent*, I decided to focus on examples and theories around peer-production and commons-oriented communities to analyse how the technology could support diverse economic systems. However, this discourse is still minoritarian, and the mainstream talk about blockchain is reduced to cryptocurrencies and speculation, being NFTs and an extension of it, using the art world as an extra layer of desirability for their own currency. But this public programme about blockchain took a different pathway: it strived to shift the conversation towards lesser-known aspects, such as the potential for social organising. Hence, instead of exploring the grand narratives of economic systems and their political and social connotations, *White Papers on Dissent* proposed a careful meandering through the fringes of economic discourse. To do so, it concentrated on looking for alternative vocabularies and artistic proposals to create a Weak Theory.



In this framework, Social Blockchain Practice Art was especially well-equipped to provide the experience of re-formulating social relations and re-addressing power structures. This is, as Haiven clarifies, “not, as is often assumed, because it retains some critical distance or autonomy from it, but rather because it is so deeply and profoundly integrated into global financial flows and their social and cultural channels” (2018, p. 531). These artistic practices were able to move beyond a celebratory semi-autonomy from capital markets and were thus able to investigate the limits, alternatives, and weak points (Haiven 2018, p. 539).

*White Papers on Dissent* is dedicated to investigating, testing with case studies of artworks, and bringing together experts in the field to explore how blockchain could unlock value from the hegemonic discourse of capitalism. In order to do so, this research focused on the multiplicity and divergence of economic languages to produce a Weak Theory, which can tacitly unveil a new proposal that configures worth alternatively and, collaterally, pre-enacts agonism. Consequently, this project is an attempt to translate my previous research focusing on value beyond markets, utilising blockchain technology and its artistic imaginations as strategic tools for its investigation.



Figure 19. View talk with Balasz Bodó and Larissa Blazic

### *Threats To Blockchain Ecosystems*

All the speakers showed caution when talking about the emancipatory potential of blockchain. Many alluded to intrinsic problems at the core of the structural development of the technology, while others pointed out the importance of not interrupting the inner dynamics of existing communities by hard coding a foreign system of rules. Activist and artist Larisa Blazic urged we go back to basics, to see how the technology could address issues like poverty, whilst also reflecting on the lack of developers with an ethos that would help solve those kinds of problems. To her, the problem lies in the lack of idealism within technological development.

Similarly, in the panel on “Blockchains, affects, and affordability,” media theorist Shintaro Miyazaki held that “most of the blockchain projects are pursuing a sort of liberal Fata Morgana, building on ideas such as value contracts, secure ownership, trust, or even price and markets,” but, he asked, “who needs that?” For him, it is more important to work on the means of communication, protocols, and rules, how things get decided in general, and he asked why should we use digital technologies for that. Nonetheless, I would argue that if we do not engage with the technology at this point in time, when it is still in development, one cannot but renounce the possibility of another internet being possible and, with it, the potential of using this technology for social change.



Figure 20. View Talk with Daphne Dragona and Shintaro Mayazaki

In the same panel, curator Daphne Dragona pointed out a problem of ownership, noting that “blockchain is based on transparencies and decentralisation, but it is also being used by companies and the market. And like with any technology, it depends in whose hands it is.” As any technological apparatus, it is not positive by default, it depends on the uses that it is put to. If we do indeed abandon this conversation about the social potential, we all know very well how neoliberalism could swallow everything to the benefit of the 1%. That is why this book and its research questions are ever more relevant today, because there is still (perhaps a small) chance of success. And that’s why the technology’s world-building ability could help.

In this framework, the artistic practices using blockchain come to be especially important, as they utilise the world-building potential not only as a way to make accessible the experience of the world otherwise, but also help develop the technology working as

prototyping sessions<sup>101</sup>. The role of the art institution, then, gathers special significance as a space for experimentation providing the free spaces described by Thörnberg (2021), which are especially relevant in radical prefiguration, since they act as cultural laboratories that permit activists to wrestle hegemonic narratives, both cultural and institutional. As Mouffe states: “artistic practices play a role in the constitution and maintenance of a given symbolic order, or in challenging it, and this is why they necessarily have a political dimension” (Mouffe 2013, p. 23). The museum would act analogously and, hence, could help debunk a given hegemony.

In the panel “Blockchains and commons,” scholar David Rozas highlighted how some research was “ignoring the power for collective action of certain communities, the power for self organisation.” For example, in my previous literature review, I examined the way Atzori (2015) has emphasised blockchain limitations and reinforced the role of traditional institutions. In contrast, based on his studies of governance of communities using blockchain, Rozas identified how the technology could function sustaining the principles Elinor Ostrom outlined in *Governing the Commons* (1990). To illustrate his points, he used Guifi.net<sup>102</sup>, a Spanish internet service provider in which the infrastructure is maintained as a commons, both in terms of infrastructure and management. Throughout his examples, he remarked on the need

to create trust between nodes, right, and between individuals. And in order to do that, [it] is probably necessary to be aware of the social cultural practices of those communities, which have to be integrated in the (technological) artefact to become, then, a situated technology. (Rozas 2021)

This point was fundamental: the technology cannot function by itself. As I said before, it needs to be thought, rehearsed, practiced. Running fast towards implementation means potentially falling into the same problems we had before, leaving to the Vectorialist class to

---

<sup>101</sup> This will be further explained later in this chapter, connecting it to the art historical discourse

<sup>102</sup> This example is used in episode 2 of the podcast to articulate the narrative around the re-formulation of value.

decide the uses<sup>103</sup>. And, with them, to open up again the possibility of replicating bias and black-box decision-making process to a rather white heteronormative male fraction of the world. Blockchain research needs to concentrate in what happens before, to find out how communities work to respect them and create a network of trust that believes in the technology as a collective good<sup>104</sup>. As Zhang (2021) admitted on another panel, “you need affordances for coordination but the kind of bonds and basic relationship between people are essential.” Naturally, there are examples of social cooperation off-chain; for example, Lovink mentioned Broodfonds<sup>105</sup> and Zhang (2021) talked about cooperatives.

However, as Zhang noted, those are monocultures, where it is much easier for people to agree on basic things when they have already excluded people who are not like them. Blockchain gives the possibility to different communities to design a type of governance aligned to their desires and goals. This does not mean that all would agree with the same system of penalties and rewards, but a certain group of people would do. And, thus, I argue this generates agonistic social imaginaries that propose a myriad of new conceptions to subvert the hegemonic order of capitalism. Blockchain makes agonism possible because it provides a flexible apparatus that can be adapted to the will of many different groups. This does not imply that all would join the same group but that one could have the alternative to join one or another. The technology makes possible a multiverse of agonistic proposals, as argued in Part III chapter 3.5.3. Accordingly to Mouffe, agonism provides the possibility of dissensus and, thus, overcome the inability to politically question the institutions and economic organisation that represented the liberal democratic project (Mouffe, 2005, p.76-83). Hence, I propose reframing blockchains as tools to generate *de facto* new worlds comprising new imaginaries based on communal action towards promoting social surplus.

For Dragona, commoning and world-building had to do with bringing different worlds together. She talked about the notion of *Uncommons* by Marisol de la Cadena (Blasa & de la Cadena 2017), which highlights “not just the commonalties, but rather how differences and

---

<sup>103</sup> This is further explained in Part I, chapter 1.4.

<sup>104</sup> In episode 1 of the podcast, many point out to the lack of intersectionality in the blockchain ecosystem.

<sup>105</sup> Broodfonds (literally, “bread fund”) is a mutual insurance association in which self-employed people jointly make insurance arrangements to cover the risks of sickness or disability.

particularities come together and complement each other, and form some sort of interdependence.” Evidently, to reach the uncommons, practicing blockchain as a tool for social organising requires expertise and affordability. This means that, to implement blockchain in a commonistic way, Miyazaki suggested that it needs to be highly adaptable, low tech, and affordable to the people and communities who want to use it. The problem then, as Miyazaki, Dragona, Zhang, and Blazic all identified, is how could this type of technologically mediated commons collectives move beyond the technologically savvy communities and become widely adopted?

My investigation about blockchain led me to believe that the technology is still far from adoption. Firstly, the price of Gas<sup>106</sup> is incredibly high at the moment, which makes the costs of general users unaffordable. But, more than that, the ecosystem still needs to develop applications that could be used without a high-entry level of expertise, and (even more relevant) that they offer real alternatives for new uses. If spaces like the metaverse Decentraland<sup>107</sup> has managed to be so successful,<sup>108</sup> it is precisely because they offer a new application that people like to use and it is easy – not because it is built on blockchain – and often that is their unique selling point. If we think again about Bitcoin, it succeeded because it offered an alternative to Fiat money to mainstream users, not because the technology itself. Being far from adoption reinforces my position about blockchain: we can still imagine what the technology could be. Its worlding ability still presents a chance, instead of a fully-fledged economic endeavour creating new forms of market accumulation<sup>109</sup>

---

<sup>106</sup> Gas is the cryptocurrency native to Ethereum which is needed to validate transaction in this ecosystem.

<sup>107</sup> Decentraland is a 3D virtual world browser-based platform. Users may buy virtual plots of land in the platform as NFTs via the MANA cryptocurrency, which uses the Ethereum blockchain

<sup>108</sup> <https://investorplace.com/2022/02/if-successful-decentraland-will-usher-brave-new-world/>

<sup>109</sup> For example, in Part I, when analysing tokens, Laura Lotti offered a conflicting view, whereas they could facilitate commons-oriented economies, they could also “entail extreme risks, such as providing new surface areas and markets for capital accumulation” (Lotti 2018, p. 98).

### *Simulating New Value Forms.*

Disrupting existing dynamics in working communities was a fundamental point of discussion in *White Papers on Dissent*. To avoid falling victim to this issue and to continue investigating value beyond the market, speakers proposed experimenting outside, as a simulation (Bowden, Lovink, Shintaro, Rozas, Yin). In previous chapters, I referred to this as rehearsals for the not-yet, which links the idea of pre-enactment (as the way to practice agonism), and with the world-building potential and prefiguration. This section therefore explores the different understandings of that proposal, connecting it with the study of the commons and the role of art in this framework.

The 1990s optimism about the Internet coincided with the development of open access commons, where “the fruits of our labour are free to be enjoyed by anyone,” as Bodó explained. As we now know, this has created unexpected repercussions. For example, AI was trained on photos with Creative Commons licenses, or Wikipedia suffering from severe underfunding. In contrast, closed commons, as described by Ostrom (1990), have clear boundaries, limiting access and extraction. Bodó reminded us that, recently, the discourse is moving towards closed commons to avoid extractivist practices such as the one of Facebook, amongst many others. In this context, distributed ledger technology could offer a reliable structure that, through a tokenised system, could track the contributions to the common pool and create a regulatory framework that would protect the community. These ideas were explained in Part I and in the podcast, along with the description of collateral problems related to the formalisation of relations. For instance, this shift could lead to the adaptation of contributions to the pre-defined categories (Muller 2018), discouraging innovation and creativity, as well as exacerbating reduced reflexivity as a consequence of automation (De Filippi & Hassan 2015). The conversations held at Van Abbemuseum proposed the idea of simulating or rehearsing possible scenarios to avoid falling prey to these problems by properly understanding the functioning of a community and its customs. These ideas link back to potential of Social Practice art in creating micro-utopias and pilot projects, or as Mukerj proposes, as free spaces that provide “shelter for dreams of possibilities that lie



outside political discourse” (2014, p. 349). These ideas come to reinforce the potential role of art and art institutions in the development of the technology.

The idea of simulation came across in different panels and talks, though it was discussed using different names, such as remodelling, LARP, or prefiguration. Naturally, these ideas are connected with pre-enactment, as described in Part III: a way to propose counter-hegemonic practices that shape new forms of dissent. These notions share temporal and spatial confines. They inhabit the same prefigurative temporality, embody liminal spaces of possibility, and, subsequently, they aim at creating cracks in the status quo.



Figure 21. View during the Dinner Hackathon by Black Swan

Miyazaki proposed the idea of re-modelling as a critical tool for thinking and theory. For him, this technique would help improve our understanding of how people are using a blockchain idea, which would previously be modelled and simulated as a way to criticise



assumptions and biases. As Miyazaki explained, “in this way, computational tools are also interesting tools for prefiguration as they help us to also project right into the future.”<sup>110</sup>

In contrast, when architect Maksym Rokmaniko talked about his project DOMA, he framed it as a form of diagnosis. DOMA is a platform cooperative using token economics to make more accessible and equitable housing. In his case, it was important to first try to standardise processes that could be extrapolated to the different characteristics of each market. Hence, DOMA became a diagnostic tool to evaluate the state of the housing crisis, which could then in turn “come back to the results and see if it is actually desirable, checking what is possible. Then it is less complicated to make micro-steps towards it.”

Technology is not always the end goal, but it becomes a process of thinking through, which brings about the possibility of reconsidering our relation to economy. Subbaraman (2021) claimed that :

the radical aspect of blockchain is that it allows us to reimagine money at a mimetic level that, I think, is unprecedented. So folks now can think about money and the economy as something that can be designed differently. And that is a priceless opportunity.

In this context, artists play the role of facilitators, making creative experiences that are intended to re-consider our relationship to value. In *White Papers on Dissent*, Black Swan created a Hackathon Dinner, a four-hour participatory performance dedicated to investigating the different ontologies of value in the art world. Yin Aiwen, in turn, convened a LARP game. Titled “Liquid Dependencies? How a decentralised caring society can look like,” it was a five-hour game delving into care values.

### ***Art And New Value Forms***

In their work, the collective Black Swan investigate how creative communities can seize the value that is produced by their artistic processes and create a sustainable economic model.

---

<sup>110</sup> Unless otherwise noted, the comments in the following are derived from these experts’ opinions as offered in the project’s panel discussions, artists talks, and participatory events.

“Black Swan is trying to imagine ways of capturing non-market forms of value,” Bowden clarified. They intend to develop an economic model for the art and creative sector, using technologies such as blockchain. Their intention is not to create luxury commodities, which is the case in the contemporary art market; rather, their model focuses on “the process rather than the object as the source of value.” Their projects materialise in LARP sessions, which use, as Bowden explained “play as experimentation to try to understand different protocols in different technical systems.” This methodology is, to them, similar to peer support or pure peer review, and it reveals the interdependence between the art worlds. For them, this goes back to the original notion of curation, derived from the Latin word *curare*, i.e. caring.



Figure 22. View of the Dinner Hackathon by Black Swan

Thinking about this role of facilitation, Bowden said, “I like working in critical dialogue with different people, since this allows us to build worlds together.” The world-building capacity of blockchain unfolds, in their work, in durational participatory performances. These LARP sessions operate like the free spaces described by Thörnberg (2021): protected places for rehearsals, unmarked by market or societal dynamics. Social

Blockchain Practice Art, like Black Swan's, can thus convey free spaces that pre-enact alternative social constructions, helping to envision a myriad of configurations of value systems by embodying them in a prefigurative manner. In Part III, Marchart refers specifically to LARP methodologies as forms of pre-enactment, becoming a form of artistic anticipation of a political event to come. "This future event at stake is an intrinsically conflictual event: the future outbreak of a conflict." (Marchart 2019, p. 177). Hence, I argue that Social Blockchain Practice Art holds the same potential, not only it helps develop the technology but also let the participant observe and engage in a tentative conflictive future. This dislocated time, which is enforced through *lex cryptographica*, creates version of utopia à la Abensour. For him, a utopia is an inspiration and a seduction to present action (2017, p. 47). To me, in is this possibility what holds a radical potential for change. It is through radical imagination that one can compose a non-hegemonic social imaginary, and distributed ledgers render possible normative systems that pre-enacts a multiverse of agonistic proposals.



Figure 23. View Dinner Hackathon by Black Swan

“Liquid Dependencies?” was a game created by designer Aiwen Yin. She believes that LARP methodology is a productive device to detach the audience’s life from the game, yet “it makes you realise how much your life is part of the structure, and how much the structure informs the way you live.” The goal of this game is to build a commons-oriented



society based on care values through long-term relationships, as a response to the challenges of the nuclearised, ageing future<sup>111</sup>. The game is based on the functioning of the Blockchain App (dApp<sup>112</sup>), ReUnion Network, which generates long-term P2P care contracts and relationship-driven cryptocurrencies.



Figure 24. ew of LARP Liquid Dependencies by Aiwen Yin

The intention of this dApp is to help people to create bottom-up social organisations as their everyday and long-term safety net. The game acts

as a simulation to see whether the design works for people or not. However, people's first takeaway is not about the societal structure, not even about the currency. But it is more about themselves, and how they are and live in a society.

---

<sup>111</sup> I used this sentence was later used again on the website that I created about the programme I curated at Van Abbemuseum, and that accompanies my research.

<sup>112</sup> dApp stands for Decentralised Application



Figure 25. View of LARP cards of Liquid Dependencies by Aiwen Yin

The participants experienced changing conditions in their lives, and the decisions they take implicitly question their value systems. The goal is to stimulate alternative social compositions grounded in values like care and solidarity. This entails a change in the notion of value, as Yin's micro-utopia does not use the market to establish factors of exchange, but care as a trading element. Through this gesture, one queers economic languages and achieves the project set by J.K. Gibson-Graham of generating a lexicon of economic diversity. As a result, the project operates similarly to the notion of Anticipatory Simulation Games. Rimini Protokoll's director Stephan Kaegi explains that these are speculative reflections on our present and future preparing the audience for the future to come (Kaegi 2016, Jan.1). The *worlding* capacity of this artistic practice sets up, again, a free space (Thörnberg 2021) that allow participants to experience living in a world where care is the trading asset sustaining all society. Hence, I propose to consider distributed ledges as tools for radical imagination, whose world-making potential leaks down to the artistic practices that use the technology.



Figure 26. View of LARP Liquid Dependencies by Aiwen Yin

Nevertheless, Yin (2021) is cautious about framing her work within the utopian yearning of a community. She asserted that “it is dangerous for a designer to decide themselves they want to create a utopia. Probably utopias have always been there, but the question is, to whom do they belong? One utopia could be another person’s nightmare.”<sup>113</sup> Hence, for her, the goal of a simulation is not creating a perfect space but helping elucidate whether a design works or not. She asserted, “we need to let go of that fixation and focusing on problems. They are bound to happen, but how can those be solved fairly and systematically?” (Yin 2021). In this way, Yin revealed the practical impulse of her artistic work: intending to contribute to the build-up of alternative futures. She convened collective experiences that perform social coordination otherwise, both encapsulating a critique of today’s organisation and practicing a blockchain construction that would stimulate the re-organisation of a community based on their own value system.

---

<sup>113</sup> Unless otherwise noted, the comments in the following are derived from these experts’ opinions as offered in the project’s panel discussions, artists talks, and participatory events.





Figure 27. View of LARP Liquid Dependencies by Aiwen Yin

### ***Economy With Agency***

In order to explore how technologically mediated commons collectives could be more widely adopted, this section moves towards the practice of blockchain, exploring how designing *with* communities could be a way to re-think economy with agency. After reflecting on the *worlding* possibilities of blockchain, this section focuses on the technology as a socially constructive tool that could help to rethink economy with agency. In this regard, Tréré asserted,

we need to continue dreaming to illuminate the future, to see what has been done and learn from it to move to the next phase. But, at the same time, we also need to get rid of all the utopian baggage that was connected to blockchain.

Previously, I explained how the plasticity of the technology enables a myriad of governance compositions adapted to the granular necessities and desires of a particular community. The technology is, thus, not a solution for everything, but it generates the possibility of a nuanced social organising that has not been until now. I argue that this makes distributed ledgers as



tools for radical imagination, since their world-making potential is useful to envision how a post-crisis world could look like.

Collaterally, it also poses many questions around its adoptability (as we have just seen), economy, or governance. Bodó reminded the audience that governance problems have existed long before the technology was conceived, noting that “political science has been thinking about governance since Plato.” Likewise, Bodó (2021) also noted that “economics is playing a role in social relations, which leads to adverse effects. Well, this has been the focus of economic sociology for quite some time.”<sup>114</sup>

Although technological mediation adds an extra layer of complication, the issues that blockchain is facing are, undeniably, not unique but universal. Perhaps, Bodó suggested, the power resides not in its capacity to give the right answer, but in making us ask the right questions. If we consider this angle, the technology becomes a rhetorical device, as Treré pointed out: it stimulates questioning of the status quo and helps us formulate alternatives, cracks that unfold liminal spaces of possibility. Holloway says, “a crack is not a step on the path to revolution, but is an opening outwards” (2010:35). Hence, blockchain becomes a tool that can help us envision the world as we would like to, and a device to craft a path towards it. When artist Calum Bowden talked about his work with Black Swan, he said that it consisted of “finding things that apparently fall through the cracks of [the] existing infrastructure of the art world and the existing infrastructures in technology, and thinking about how Black Swan can support that.” A multiverse of agonistic proposals for alternative social constructions flourish in these interstitial spaces of possibility. Therefore, agency is the key point in the unfolding of this issue.

### ***Agency in a Socially Constructive Technology***

To become socially constructive would mean that the technology would save society and technology is saved by society, Rozas explained. Inevitably, this is a question of agency, both in its development and the concomitant agency endowed in the future outcomes whilst

---

<sup>114</sup> Unless otherwise noted, the comments in the following are derived from these experts’ opinions as offered in the project’s panel discussions, artists talks, and participatory events.

collaterally moving away from techno-determinism. For that to happen, Lovink suggested that “we need to try to master the technology instead of being a victim.” Hence, Treré proposed to move from Blockchain Mysticism, in Zeilinger’s terms (2018), or from the technological sublime, where “we tend to forget about the misgivings of technology because we are in awe about its developments.” Blockchain stewarding could, as Subarnaram claimed, give us the “opportunity to essentially engage with economics with creativity, and reinvigorate economic thinking as something that we have agency in.” Nonetheless, the way of implementation, they all agreed, is neither easy nor imminent. Rozas admits that research today needs to explore boundaries and risks if it is to be able to identify models, “and we have to do this trying to incorporate the cultural and the social practices of the communities within the situated technology. So it’s basically time to go to the field.” In contrast, Lovink proposed to go back, starting to discuss foundational issues such as protocols and standards, “and really go deep at that level first before we move on to implementation.” In this way, the intention is to avoid repeating past problems or to exacerbate the ones we have today, which is exactly my point, as much as there is still certain leverage in the development, we need to move fast and act slow and careful. If we aim to create a socially-conscious distributed ledger, we need to focus on the workings of a communities to comprehend the ways the technology could help secure their dynamics, whilst also supporting new communities in their desire for emancipation. In doing so, one needs to respond to complex questions on such issues as the functioning of value systems and taxonomies to understand the praxis of a social imaginary. Intersectionality on the side of the developers, and radical imagination in agents and their communities could contribute to generate a healthy ecosystem. Development researchers Richard Heeks, Mirta Amalia, Robert Kintu, and Nishant Shah (2013) have defined this as “inclusive innovation”. The concept refers to “new goods and services are developed for and/or by those who have been excluded from the development mainstream particularly the billions living on lowest incomes” (Heeks et al. 2013, p.1). This idea ties back to the questioning of Blazic, Dragona and Miyazaki regarding the blockchain adoption. Could blockchain be implemented in non-technologically savvy communities? Could this innovation be triggered and adopted by a critical mass? These transdisciplinary group of researchers point out to the “ladder of inclusive innovation”<sup>115</sup> as a method. But first, we need to back to the basics to avoid the problems of the past web 2.0.

---

<sup>115</sup> This method offers two viewpoints regarding the level of inclusivity in relation to innovation. They identify 6 steps: from level one, when the intention is to address or solve the problems of an excluded group; to level 6,

The conversations in the VAM version of *White Papers on Dissent* recurrently prompted a discussion regarding difficulties of implementation both on a supra level and within the communities. To a fundamental degree, crypto is happening inside Platform Capitalism, Lovink argued. On the one hand, there is an enormous hidden centralisation in terms of ownership. On the other, as Lovink also pointed out, leading blockchain projects are simply using server space from Google and Amazon. To counteract this tendency, he proposed the idea of public stack or the reintroduction of the Internet as a public infrastructure. “This is, maybe, where some beginnings of blockchain and the common could be allocated and could be hardwired also into the hardware and into the data centres,” he suggested.

However, the issues are not just related to the infrastructure as they also involve issues within the existing dynamics of a group. Many speakers showed distrust of the necessity to introduce blockchain, particularly within P2P and commons-oriented communities (Shintaro, Dragona, Bodó, Rutherford). The P2P collaborative systems (studied in Part I) are digital communities composed by likeminded individuals, who freely, willingly, and collectively work towards the same goal following their particular value system (Bauwens, Kostakis, & Pazaitis 2019:1, Bauwens & Pantazis 2018:303). These features render non-hierarchical networks where “peers are interconnected nodes holding interchangeable roles” (Bauwens & Pantazis 2018:303).

Artist Ailie Rutherford, who convened a workshop, explained her experience behind *The Swap Market*, the non-monetary exchange space in Glasgow introduced in 2.3.3. Over six months, she explored the potentials of blockchain to channel this alternative economic system. Nevertheless, they soon realised that it was not the right answer. To her, “it felt very much that we were imposing the technology onto an alternative economy that functions actually quite well outside of the mainstream. The technology was maybe just about trying to control it.”<sup>116</sup> Her example came to reiterate many of the participants’ concerns regarding disturbing the inner dynamics of a pre-existing well-working community.

---

which exemplifies a type of innovation, which is created within a frame of knowledge and discourse that is itself inclusive. The researchers also point out diverging notions in inclusion and potential problematics.

<sup>116</sup> We can hear more about this in the podcast, and I also refer to this in Part III, when I introduce her work Crypto-knitting circles as a Social Sculpture.



Figure 28. View of the Workshop String Figures led by Ailie Rutherford

The solution to this potential problem rests in research before implementing<sup>117</sup> any technological apparatus without properly understanding the scope of the ripple effects. For example, in Part I, I introduced a series of potential threads, from the crypto-leviathan situation to the gamification of rewards mechanisms.<sup>118</sup>

Likewise, Bodó saw blockchains as a form of Taylorism, which tries to control, very strictly, the social, human, fluid, and communicative way of labouring for the commons. “Who on earth, and why or earth would you want to taylorise this type of labour?” Precisely, exerting this type of mediation over a free and willing community would become a form of societal control, which is the antithesis of any P2P organisation. Despite pinpointing many of the limitations and risks, Rozas proposed to design *with* communities to avoid disrupting the

---

<sup>117</sup> Episode three in the podcasts focuses on this.

<sup>118</sup> In Part I, I referred to Cila et al’s paper *The blockchain and the commons: Dilemmas in the design of local platforms* (April, 2020), which was especially useful to understand how a tokenised system could play out in a commons-oriented community.

inner dynamics within a group, noting, for example, extreme qualification could lead into data fetishism, while self-enforcement and formalisation could break the loose working arrangement of a community, along with removing altruistic dynamics, or even turning contributions into a gamification strategy. This is naturally related to the potential pitfalls, such as creating a para-legality, exacerbating bias or creating new hierarchies, all which were introduced in Part I. Especially wearisome are the collateral disruption of the normative tempo, with the concomitant difficulty to define exceptions (De Filippi & Hassan 2016). This is on top of the problem of accountability, due to the involvement of non-human agency, where Brekke denounces the impossibility of impartiality (Brekke 2019, p.28). As she explained in her thesis, which I presented in Part I, some parts of the technology are determined by mathematics or even the capacity of fibre optics (Brekke 2019, p. 31). But even more important is the human attitude towards the non-human elements. For instance, we cannot grasp machine-learning algorithms (Brekke 2019, p. 23; Burrell 2015, p. 3), and even if they are, we need to trust them, and that is much more complicated. As Brekke ponders, “a protocol can be trustless and yet require plenty of trust” (2019, p. 25). To me, the root of the problem of implementation is the high-level access. Therefore, we need to create the right texture for it. This means to emphasise the research on what happens before implementation, meaning the exploration of the inner dynamics and the effects and disruptions made by the technology. Along with focusing on creating fundamentally new resources that could either solve current problems or facilitate novel ways of interaction. Hence, I would venture to say, that the technology is not the fundamental factor of change, but the way we think *through* it, what we use it for, and the shape of the dreams it conveys. This is how the technology acquires this hint of possibility. It is not so much the solutions that it gives us, but the questions that it poses to us. It is a tool for radical imagination.

### ***P2P value systems.***

Although I have recounted how many nuisances reveal a potentially arduous implementation, in *White Papers on Dissent*, I also presented the case about why we need to pay attention to blockchains now and what are the issues we need to overcome. The

technology offers portals to alternative realities where value systems are not grounded in the market. For instance, at VAM, Saraswatti Subbaraman introduced the initiative Circles UBI<sup>119</sup>, which is an alternative economic system that acts a bit like a basic income; and Erik Bordeleau did the same with The Sphere<sup>120</sup>, radically innovative P2P community platform for self-organization and sustainable cooperation in the performing arts. These projects coincide in their motivations: they are organised around the shared goals of a community. Using blockchain affordances permits them to make visible and, hence, allocate worth to the tasks that convey their particular value system. To illustrate this process, Rozas described his previous research on free software communities where it was easy to trace certain contributions—such as writing source code, writing, or documentation—but activities like mentoring or organising events were less visible. By using tokenisation, they could measure contributions that usually go unnoticed, render them visible and thus make them valuable for the community. This relates to the work of Strathern (1992), who elucidated that social relations acquire value through the process of being acknowledged by others. In turn, this connects to Gibson-Graham's project on non-capitalocentric economies, which position the community at the core of their assessments. For them, this resolution renders the notion of social surplus, explained by J.K. Gibson-Graham, as an immaterial excess that goes beyond the economy and is dedicated “to build and sustain the material and cultural infrastructure of the social order” (Gibson-Graham 2006, p. 91). Hence, by using token economics to make social surplus visible, P2P economies could redefine their relation to capital. If they move worth from monetary gains towards measuring the wealth of a community in terms of social well-being, then, these blockchain-mediated P2P communities could avoid the disruption of their inner dynamics and re-define their economy with agency.

### 4.3 Conclusion

Nepantla is a Nahuatl word found in Chicano and Latino sources, which means in the middle or in between. Philosopher Gloria Anzaldúa (1987) describes it as where connections can be

---

<sup>119</sup> The website of Circles explains that “Circles is an alternative economic system that acts a bit like a basic income. Circles is intended to be a new kind of exchange, completely different than any kind of money in use today. Circles uses the xDAI blockchain, which is functionally almost identical to Ethereum but has substantially lower transaction costs as it is operated by only a limited amount of validators instead of using high energy and cost consuming “proof of work.”” (Circles, n.d)

<sup>120</sup> As taken from their website “Inspired by recent innovations in the field of distributed ledger technologies (blockchain) and P2P contributive economies, The Sphere is a radically innovative P2P community platform for self-organization and sustainable cooperation in the performing arts.” (The Sphere, n.d.)

made, scenarios can merge, and one's perspective can change. As Dragona (2021) recounted, Anzaldúa speaks of cracks when referring to Nepantlas, noting that “it might be an unfortunate and a fortunate situation at the same time, one of being at the margins, of not belonging but of having the possibility for this specific reason to see through, to code-switch.”<sup>121</sup> Dragona thinks of art as a form of Nepantla. For her, art is grounded in this manner of looking and feeling.

I asked Dragona whether blockchain could offer this, too, and she replied that “I would think that it depends on the people using it, conveying what it offers to others. If it is accessed, embraced, and used by the many, it has the potential to become an infrastructure of radical change.” I would argue that the projects of Black Swan or Aiwen Yin for *White Papers on Dissent* operate in this way. They enact Nepantla, becoming a moment of in-betweenness that allows for the performance of counter-hegemonic orders. The participants play a narrative that speaks of dissent and is grounded in blockchain, which is unseen but is rendered palpable through a simulation that creates a common passage for participants to cross temporalities, cultures, and knowledges. In this way, they embody Nepantla, creating cracks where we are now able to question ourselves within the social construct we live in, whilst gaining a taste of how it could be.

*White Papers on Dissent* gathered manifold, nuanced definitions of pre-enactment, here referred to with terms like simulation, re-modelling, or speculation. These rehearsals of the not-yet are aimed at improving and avoiding the many pitfalls that were mentioned, to create better technologies that could organise better societies. In Rozas's formulation, “technology would save society and technology is saved by the society”; thus, blockchain becomes socially constructive. The affordances of the technology stimulate social experimentation, using its technical possibilities to generate new social structures that convey new imaginaries based on communal actions fostering social surplus. Value is transformed

---

<sup>121</sup> Unless otherwise noted, the comments in the following are derived from these experts' opinions as offered in the project's panel discussions, artists talks, and participatory events.

and made diverse and responsive. Through art, one can practice new shapes of counter-hegemonic orders encapsulating those non-capitalocentric values.

The diversity of cracks, ruptures, and proposals aimed to construct a Weak Theory that explored alternatives and divergent discourses about blockchain. As opposed to Hard Theory, which grounds hegemony, this perspective moves away from power as a way to think *through* the seductive influence of otherness. Through talks and participatory events, *White Papers on Dissent* compiled voices that deviate from traditional crypto-economic circles to offer views that compose a Weak Theory of blockchain. The participants' experiences, theories, and opinions showed how careful and fragile the ecosystem still is, and how much caution should be taken to avoid the problems already experienced in Web 2.0. Although the technology used the language of utopia, this rhetorical device often stumbled over problems of practice. Far from terminating the discourse, it became clear that, though incredibly powerful, blockchain needs to be rehearsed, simulated, and modelled.

The first iteration of *White Papers on Dissent* introduced how artistic practices, after a moment of upheaval, adopted the same coordinating strategies of digital activism, as well as sharing their prefigurative capacity. The second iteration was able to further investigate blockchain as a tool for radical imagination, looking into how that world-making potential trickled down to the artistic practices that perform the technology. In this way, I tie concepts such as activism and radical imagination together with prefiguration and world-building. These notions come from different disciplines but, when interlaced, they create this rich milieu. It reflects on the role of the technology conveying social imaginaries and the potential of using the technology to create portals to alternative realities through world-building exercises that prefigure the world that we desire.

In this last part, I analysed how the curatorial projects informed my research but, most importantly, how they also came to expand it. The curated project took an activist approach, I did not only want to present the current state of affairs, but also aimed at presenting alternatives to the neoliberal order. To do so, I also pointed towards the institutions and their criticality, which come to represent spaces that avoid the market dominance and provide locations to resist the hyper-financialization of art (Mouffe 2013, p. 101). ACC and VAM



provide free spaces to re-think the rules of capitalism through Social Blockchain Practice Art, enabled a space for discussion and rehearsals of alternative hegemonies. Moreover, I focused on LARPing methodologies as forms of critical thinking, ways to embody pre-enactment of agonism and, thus, gives us a glimpse on an imagined future where the market doesn't control every aspect of social life.

Through my project, I elucidate a Weak Theory that explains blockchain as a social technology. It underlines the necessity of community bonds that could sustain a structure mediated with blockchain. The social and the technological are not opposed poles but equal valuable parts shaping the same synergy. These forms of alternative social coordination inhabit a dislocated temporality that enables the performance of agonism. In this way, I propose to reframe distributed ledgers as tools that let us radically imagine our future based on non-market values. The goal is to contravene hegemonic systems, offering a multiverse of possibilities in agonism, where artistic practices become the manner to render world-building into a strategy for dissent.

## Conclusion

“At the heart of every Ponzi scheme, there is a really good idea.” Gary Zhexi Zhang reminded us, when he was talking about blockchain at the panel discussion I curated about governance at Van Abbemuseum (2021). A Ponzi scheme proposes ideas that could lead to unique opportunities. However, they are also a sham. Although blockchain moves between the muddy waters of hope and risk, for me, it still presents an opportunity.

The intention of this book was not to propose blockchain as the solution for every governance problem, monetary re-arrangement, or imbalance in the art world power structure. Rather, it was dedicated to the exploration of blockchain as a tool for radical imagination. I did not focus on results, but on possibilities. It delved into the ways blockchain makes us think, the structures it allows us to construct, and the paradigms it aims to depose. Necessarily, it also accounted for the myriad threats it needs to sidestep.

This research was organised into three different parts, which were dedicated to the investigation of the social possibilities of the technology, the art historical context of social blockchain practice, and lastly, how these two created new social imaginaries. This was accompanied by a fourth practical part, which took the shape of two curated projects, that were described and contextualised in Part IV. In this way, practice and theory informed one another: the practical part communicated the research while also further developing and enhancing the theory around it. By using this double approach, I was able to substantiate many of the notions put forward in Parts I to III and to provide new perspectives that help ground and further my research from a transdisciplinary perspective. Although my thesis was not about artistic research, I intended to contribute to the praxis of art research, using the curated project as tool for investigation and impact that offer new ways of engaging and communicating my investigation and findings to a wider audience.

In structuring the project in this way, I was able to explore how blockchain becomes a language that conveys today's utopias thanks to two interlocking processes: the capacity to dislocate time and the ability to reformulate the notion of value. Correspondingly, this double motion triggers a new form of dissent by appropriating the technology and, it is rendered in

artistic practices that utilise the world-building possibilities of the technology to pre-enact agonism by conveying a myriad of new social imagines. In this way, Social Blockchain Practice Art becomes a new medium for socially engaged art and an enhanced version of Institutional Critique.

### ***Dislocating Time To Enact New Value Forms***

Blockchain becomes a language to convey today's utopias. The meaning of utopia, as we have seen, has changed and evolved but, for me, Abensour's understanding best channels the feeling of possibility. To him, utopia is a simulacrum and, as such, a stimulus to take action. Blockchain simulates forms of alterity that evoke new realities post-crisis. The progressiveness of these propositions is grounded in the understanding of value. As a non-capitalocentric notion, it becomes a responsive and community-based practice. To reframe value far from the market collaterally reconstructs social imaginaries. The technology becomes both a device to transform value into a fluid notion and is born out of the necessity to think (again) what value could mean today. This synergy generates new imaginaries attuned to the here and now. This holds a prefigurative potential and, thus, it is intended to trigger change. As Gibson-Graham would say, this is a process of *queering* the economic language, and it destabilises and disrupts the seemly identification with the rules of capitalism, prompting, as a result, counter-hegemonic discursive projects.

By thinking *through* the technology, we can now explore the multidimensional nature of economic existence. In this way, we start overcoming the binary tension that sets capitalism apart, and feminist, community, and commons-oriented economies can flourish in a techno-social organisation regulated by blockchain. The ethical decision-making process can now be formalised on a smart-contract level. It can, hence, make visible, and thus valuable, the often-ambiguous social surplus: the cultural and material infrastructure of a social order.

*Lex cryptographica*, the regulatory framework of blockchain, can enact those new social imaginaries, allowing us to experience in the present what we aim for in the future. Smart contracts ensure that any future action will always correspond to the rules that were

previous defined. Future and present are interlaced—correlated parts in the same equation. To me, this is blockchain’s most radical feature: its capacity to dislocate time. Although transforming the normative tempo from ex-ante to ex-post makes it difficult to define exceptions, along with threatening autonomy and accountability, it also gives us a tool to generate a future that is aligned with a value system that was collaboratively defined. As a result, it reinforces certain behaviours and modes of working together.

The museum became the site that could foster these re-imaginings and curating the approach to analyse and disseminate these findings. The art institution took the role of a free space, a location where three different disciplines came together: activism, technology and contemporary art. These three interlocking realms build up an argument that cross-pollinated the imaginings of the technology with social practice art to create a community of practice. In this way, this diverse community became the “the primary loci of learning, which is seen as a collective, relational, and social process” (Omidvar & Kislow 2014, p. 266). Given the high entry point to the technology, the complexity of its workings, and its social and emancipatory goal, this theory was pivotal in the development of the curated programme. *White Papers on Dissent* was thus conceived as a space for knowledge production and dissemination, crystallised as panel discussions, workshops, and participatory performances. In acknowledging the audiences’ participation and the influence of different agents I intended to reinforce the idea of Weak Theory, which creates knowledge in a collective manner and is capable to go against and see through hegemonic systems.

Throughout this thesis, I have mentioned the idea of time shift under several names: pre-enactment, speculation, re-modelling, and prefiguration. As I noted in the introduction, white papers and manifestos use future perfect constructions. This is a verb tense used for actions that will be completed before a specified point in the future. In this case, this point would be the proper implementation of the technology. I borrowed this tense in much of my thinking and noted how it also influenced artistic practices such as LARPs and workshops, and the game “Liquid Dependencies” by Aiwen Yin in *White Papers on Dissent*, for example. Overcoming this theoretical point, makes these practices, theories, and white papers able to design ahead and anticipate the future, which collaterally endows them with agency

and, thus, the potential for change. This capacity implicitly makes us question how past practices led us to this present, as well as influencing how we configure a desired future that challenges the status quo. For me, the power of blockchain resides in the dream of surpassing the sense of blockage that prevails in this moment of crisis and pandemic. It gives a sense of possibility, which found its way within Van Abbemuseum as an experimental institution engaging in imagining the world otherwise. The museum makes possible that curatorial voices reflect and disseminate a theory that doesn't follow the mainstream paths, in this case, claiming blockchain solely in relation to the neoliberal effort to co-opt every single aspect of social life. To the contrary, VAM became the structure to rehearse techno-social imaginaries that deviate, and explore and engage with the possibilities of the not-yet.

***Appropriating The Technology, Creating A New Type Of Dissent, And Transforming Artistic Practices***

When I started my research, I wondered how dissent could be activated today, and what the role of technology would be in this. This question immediately brought me to thinking about recent waves of protest. Different from earlier political movements, these groups are neither associated by classic political constituencies or identity politics, nor constructed around shared myths, narratives, or self-descriptions. Rather, it is technological mediation, immediate connectivity, and affective connection that defines which collectives evolve and continue. Technology was not relegated to the role of a communication tool, it became organising gear. By appropriating it, these social movements became powerful and coordinated dissent actions.

This study led me to two ideas: the possibility of appropriating blockchain likewise, and the potential of prefiguration as a political strategy. Although usually only associated with New Social Movement Theory, I proposed that we consider prefiguration in the context of the workings and political prowess of the technology. The idea of time is persistent in the two traditional strands of prefigurative politics: one dedicated to ways of mobilisation, where the means reflect the ends (Boggs 1977, Graeber 2002), and another focused on the speculative creation of alternatives (Epstein 1991, Breines 1989). The two perspectives

converge in the blockchain projects and theories explained in this book. The capacity to dislocate time formulates a unique form of dissent, since in smart contracts means reflect the ends, generating alternatives to how things stand. Hence, the project of dissent is embedded in the practice of blockchain. The technology becomes responsive to the techno-political complex, and provides a substitute thanks to its prefigurative capacity, which later can be traced down the artistic practices.

Digital art, as the latest embodiment of new media, and social practices have always placed at the fringes of the art historical canon, and artworks using blockchain are, concomitantly, still finding their way into it. However, over the last years we have seen how these practices are more and more present in it. The digital ones due to covid, and social practices are not relegated anymore but at the centre of the discourse, as Documenta fifteen shows. However, this has been a difficult process when it comes to the complexity of integrating these practices within museological rationale, since they provide new forms of interaction and question classic models of display, mediation, and reproduction. They also encourage expanded versions of spectatorship, production, and collaboration.

To position these artistic practices in art historical terms, I took different perspectives that did not focus on medium specificity but on on their ways of working and possibilities. My intention was to understand how Social Blockchain Practice Art continues previous movements whilst offering nuanced forms of critique that expand them. I argued that these projects act closer to the experimentation undertaken by the avant-garde, whose driving force was the construction of a new society, culture, and humanity through aesthetic experiments and investigations.

I found particularly interesting the parallel with Beuys's notion of Social Sculpture, which dissolves the boundaries between life and art and, in the same way, blockchain functionalities are implemented in a community that actively participates in the making of a different society. The neo-avant-garde's utopianism was driven by a praxis-oriented approach, as happens in the case of blockchain artworks. Blockchain artists do the same with the means of distribution, their critique is attuned to the infrastructures to which they propose alternatives. For instance, if we think of NFTs, their radical potential is not only that they

manufacture scarcity, but that they propose an alternative to the traditional art market, introducing new players and formats, ultimately creating a new trading system.

Artists working with blockchains problematise the reproduction of the symbolic order of neoliberalism in the post-digital realm and create new forms of engagement that overcome the physical/virtual dichotomy, forging a community of likeminded collaborators with the same political outlook. The political agency lies in both its nuanced form of Institutional Critique and the novel form of organising, which positions them within Social Practice Art Theory. The two waves of Institutional Critique overlap in these projects. One movement goes inwards, addressing the particularities of the medium from within; another goes outwards, trying to procure a change outside the realm of action, concentrating in the power structures at large. Moreover, these projects facilitate a collective experience, where the participants become co-authors in a process of transversal collaboration. As a result, these projects convey counter-hegemonic proposals that challenge the current sedimented practices by composing new subjectivities that aim to dismantle it. To me, their great potential is to create a Weak Theory that proposes the technology as a mechanism to pre-enact agonism. It makes use of the dislocated time of blockchain to bear non-capitalocentric social imaginaries through participatory methodologies.

These art forms integrate politics, aesthetics, and technology, procuring a unique form of dissent. These proposals represent a symbolic order, a concrete imaginary that is enacted through performative means. Naturally, this does not mean that dissent is a single answer, but that these proposals configure a multiverse of agonistic proposals, stating the legitimacy of all conflicting interpretations and becoming the way to voice opposition. This multipolar world based on the different blockchain configuration pluralises hegemonic orders and, thus, it *queers* the economic and political models. Concomitantly, these structures break inherited hierarchies of capitalism and articulate social life differently. These different ways of looking at the world contravene the hegemonic order that tints our world today with a feeling of disaffection and unresolved crisis.

Social blockchain practice deploys digital critical vernacular to engage with multi-disciplinary and translocal actors united by their desire for change and their willingness to

engage with experimentation. By performing the potential of blockchain, these practices become exercises of anticipation of a potential new and diverse society to come. Perhaps I am naïve, but like many others, I want to believe in the power of art to create a *Nepantla*, a moment of in-betweenness, a crack that becomes a starting point for counter-hegemonic orders. Judith Butler argued that a state of becoming is created when power is assumed by the subject and this same acceptance is the device for that subject's becoming (1997, p. 11). This process of being and becoming is always active. Power is continuously repeated, ritualised in practices that need to be broken. To break and dislocate capitalocentrism's hegemony is, intrinsically, the intention of Gibson-Graham (2006, p. 77). Likewise, the artistic practices covered here not only make possible an agonistic confrontation by effectively putting forward alternative (counter-hegemonic) systems, they come to expose the political potential of art in post-digital societies.

### ***Curating White Papers On Dissent***

The experience of curating two projects helped to enhance, disseminate, and corroborate the notions developed in Parts I to III. It naturally also brought new outlooks. The two projects were separated by almost two years, in which time my research advanced and focused its scope. In the first curated project, I developed a research exhibition, while the second was a discursive programme. This change is related to the evolution of the ideas, which went from initial clarity with more established researchers and more thoroughly investigated topics, to a newer discourse, which moved between disciplines and was more fluid, without a clear theoretical corpus. These projects became a test for my ideas and pushed the boundaries of my thinking and, with it, the discourse at large. I provide new approaches that came from joining different realms (activism, technology and art), as well as gathering a pool of artists, researchers and activists who gave their thoughts at a point in time where many were still thinking through the possibilities, while others were creating prototypes. The project was able to capture the still nascent and still-in-progress moment, when optimism, or at least, careful hopefulness were still pervading the blockchain ecosystem.



In the first curated project of *White Papers on Dissent*, I paid attention to the South Korean context, surveying around twenty years of digital activism. The country has a history of resistance and uprising, and it is pioneering in its use of new technology as a means for mobilisation. These circumstances allowed me to analyse the influence on artists afterwards, who often reproduced the same tactics, such as using meshwork coordination and P2P collaboration in their creative process. As this relationship became clearer, I was able to discern how the same technological appropriation by protestors flowed down to artists. This connection gave me the cue to extrapolate it into the blockchain context and this breeding ground nourished my investigation into Social Blockchain Practice Art.

These findings radically informed the second part of this research, in which I argued that Social Blockchain Practice Art is a specific artistic practice that appropriates blockchain technology as a medium to engage with translocal communities. This relates to the analysis of the politics of the technology in relation to New Social Movements, as these groups share the same heterogeneous composition and desires. Social Blockchain Practice Art thinks *through* the technology to generate new forms of social coordination grounded in diverse values. To replicate and reflect the same dislocated time, they use participatory techniques that perform, in the present, a future organised through blockchain. Gaming and LARP methodologies make real, palpable, and accessible a collective process of enacting the technological praxis. To me, their relevance resides in their world-building capacity, which holds the potential to configure alternatives and enables the audience to experience those new social compositions, values, and ways of understanding the world as if they had already overcome today's problems. They become participatory rehearsals of the not-yet.

The second part of *White Papers on Dissent* provided exceptional perspectives, which positioned my research within the voices and projects that are shaping the discourse far from the traditional crypto ecosystem. The programme explored, debated, and displayed the state of affairs of a rapidly changing movement, equally filled with hopes and threats. It focused on its social potential and its capacity to re-formulate social relations and re-address power structures, unravelling threads of thinking about blockchain as a tool that could enable new social imaginaries.

The talks and participatory events revealed the worlding capacity of blockchain, and corroborated its potential as a governance mechanism. However, the fact is that many participants coincided in blockchain should not be enforced, as it could potentially disrupt existing dynamics or impose new behaviours. To avoid this problem, many participants suggested experimenting outside, as a simulation. The idea of simulation came up recurrently under different names such as remodelling, LARP, or prefiguration and pre-enactment. These notions inhabit the same dislocated tempo, embody a liminal space of possibility, and share the same intention: creating cracks in the status quo.

Perhaps, the role of blockchain, as Bódo suggested, is not to give the right answers but to pose the right questions. Disguised behind debates about governance, scarcity, or censorship, it makes us think, ponder, and imagine what type of society we thirst for. Through this wandering around the outskirts of economic and political languages, we were able to find other values that were previously sequestered as incommensurable attributes. The interdependencies between economic subjects and the values that they created could be represented at a code level. One can now acknowledge and visualise those difficult-to-account-for values: care, social innovation, maintenance, and many other tasks, interests, and social practices.

The speakers called for attention and the necessity for reflection, counterbalancing dreams of theoretical innovation with realism. It provided an accurate description of the state of affairs. The complexity of the technology and the many different actors and interests involved in its development pose fundamental questions about its future. Through the fruitful experience of convening this project, I was able to carefully observe that the agents developing the technology are extremely cautious about the future. While I intended to provide an optimistic outlook throughout this thesis, curating this project also made me wary. The aura of potential which populated this research was then evened out by the realism of the experiences of those who were developing projects from scratch. Nevertheless, all agreed on blockchain's world-building ability, its capacity to re-think the economy with agency, and its potential to undo social dynamics. Although how this social potential could materialise remained unclear, all agreed that the key was to design *with* communities instead of *for* them.

It became clear that, although the technology is a powerful tool, it needs to be rehearsed, and speculated upon.

The making of the podcast also gave me the opportunity to delve into the audience's perspective, learning how they felt about the technology and helping them to understand it. This rewarding process helped me to better understand the relation between how its conceptual and practical complexity influenced implementation. Although the practice was almost bittersweet, I recognised how much work still needs to be done in terms of disseminating and making accessible, and also to demystify the technology. If this research were to continue, I would likely develop a more practical approach that could help disseminate the workings of the technology, writing workbooks, kits, and manuals along with developing workshops and games.

Nevertheless, success is always an ambiguous indicator. For example, the movements of 1968 didn't have political consequences per se, but triggered a systemic change where society and its institutions reconsidered issues like drugs, sex, race, class, and gender; even the concept of art<sup>122</sup> and culture itself were enlarged (Marchart 2019, p. 10, Rogger 2018, p. 35). Thinking of blockchain as a revolutionary technology remains unclear. To me, these practices, like New Social Movements, are not intended to provoke a paradigm shift but to foster discrete political effects. The technology is only a tool that makes us pose the right questions. To consider, for example, what other types of governance mechanisms could fit our social goals, which voting schemes can better represent collective preferences or how to reward values that usually go unaccounted. Blockchain makes us question the very essence of the structures that we take as a given and pushes us to think of alternatives. It then becomes the device that triggers our imagination to think of "elsewheres" and "otherwises": new ways of enacting dissent and prefiguratively conveying today's utopias.

I am aware of the many technological problematics, the difficulties of implementation, and the threats that need to be overcome. As I noted in the Introduction, this book doesn't take the shape of neither a white paper nor a manifesto, it is dedicated to

---

<sup>122</sup> Let's consider the practice of Joseph Beuys again.

thinking about blockchain's potential as a tool for radical imagination. Hence, I wanted to scrutinise and develop the hopes, possibilities, and dreams for a technology that still needs to be tried, adjusted, and adapted to various communities and their manifold desires. Yet, without presumption, futurity, or projection, how can we start dismantling this present that was given to us, and start opening outwards to new futures, far away from the ones we inherited? This thesis was a stimulus to present change, my way to convey a utopia.



### Barbara Cueto: Work Previously Made Public

Cueto, B. (2022) C/O Digital. <https://co-digital.org/en/>

Cueto, B. (2022) The Poetic Grammar of the Hack. Exhibition Catalogue. Barcelona:Caixa Forum

Cueto, B. (2021). White Papers on Dissent. <https://www.whitepapersondissent.xyz/>

Cueto, B. (2019, Nov. 18th) *Liquidity Inc.* ADesk <https://a-desk.org/en/magazine/liquidity-inc/>

Cueto, B. (2018). This site is under Revolution. In *6th Moscow Biennale for young art* (pp. 27–55). Moscow: MMOMA.

Cueto, B., & Hendrikx, B. (2017). *Authenticity? Observations & artistic strategies in the post-digital age*. Amsterdam: Valiz.

## Reference List

- Abensour, M. (2017) “The history of Utopia and the destiny of its critique” Ed. Chrostowska, S, and James Ingram. *Political Uses of Utopia: New Marxist, Anarchist, and Radical Democratic Perspectives*. Pp 3-57. New York: Columbia University Press
- Abiral, B. (2015). *Catastrophic futures, anxious presents: Lifestyle activism and hope in the permaculture movement in Turkey*. [Unpublished master’s dissertation]. Sabancı University, Istanbul.
- Adorno, T. (1997). *Aesthetic theory* (Gretel Adorno and Rolf Tiedemann, Eds., Robert Hullot-Kentor, Trans). Minneapolis: University of Minnesota Press
- Agrawal, H. (2019, September 6). What is a bitcoin hash? *Coinsutra*.  
<https://coinsutra.com/bitcoin-hash/>
- Alberro, A. (2003). *Conceptual art and the politics of publicity*. Cambridge, MA: MIT Press.
- Allen, D. W. E., Berg, C., & Novak, M. (2018). Blockchain: An entangled political economy approach. *Journal of Public Finance and Public Choice*, 33(2), 105–125.
- Allen, J. (2003). *Lost geographies of power*. Oxford: Blackwell.
- Amin, A., & Roberts J. (2008). Knowing in action: Beyond communities of practice. *Res Policy*, 37, 353–369.
- Anzaldúa, G. (1987). *Borderlands/La Frontera: The new mestiza*. San Francisco: Aunt Lute Books.
- Atonal (n.d) *Wikipedia*. Retrieved in September 19<sup>th</sup>, 2022  
[https://en.wikipedia.org/wiki/Berlin\\_Atonal](https://en.wikipedia.org/wiki/Berlin_Atonal)
- Atzori, M. (2015, December 1). Blockchain technology and decentralized governance: Is the state still necessary? *SSRN*. Retrieved from <http://dx.doi.org/10.2139/ssrn.2709713>
- Avanessian, A. (2014, March). The speculative end of the aesthetic regime. *Texte our Kunst*, 93, 40–66.

- Ayers, D., & Hjartarson, B. (2015). New people of a new life: Modernism, the avant-garde and the aesthetics of utopia. In *Utopia* (Vol. 4, pp. 3–14). Berlin: De Gruyter.
- Bal, M., & Hernández-Navarro, M. Á. (Eds.). (2015). *Art and visibility in migratory culture*. Leiden: Brill.
- Barlow, J. P. (1996, February 8). The declaration of independence of cyberspace. *Electronic Frontier Foundation*. Retrieved from <https://www EFF.org/cyberspace-independence>
- Bauhardt, C. (2014). Solutions to the crisis? The green new deal, degrowth, and the solidarity economy: Alternatives to the capitalist growth economy from an ecofeminist economics perspective. *Ecological Economics*, 102, 60–68.
- Bauwens, M., Kostakis, V., & Pazaitis, A. (2019). *Peer to peer: The commons manifesto*. London: University of Westminster Press.
- Bauwens, M., & Pantazis, A. (2018). The ecosystem of commons-based peer production and its transformative dynamics. *The Sociological Review*, 66(2), 302–319.
- Baxtel, P., & Ikoniadou, M. (2014). “Common Senses” *Miriad Research Degree Programme Newsletter N°4 Autumn*. Ed. Reifenshtein & Trustram. Manchester, UK: Manchester University Press
- Beck, J., & Bishop, R. (2020). *Technocrats of the imagination: Art, technology, and the military-industrial avant-garde*. Durham, NC: Duke University Press.
- Bell, G., Blythe, M., Gaver, B., Sengers, P., & Wright, P. (2003, April). Designing culturally situated technologies for the home. In *CHI '03 extended abstracts on human factors in computing systems* (pp. 1062–1063). New York: ACM.
- Bell, T. W. (2017). *Your next government? From the nation state to stateless nations*. Cambridge: Cambridge University Press.
- Bellotti, V., Ambard, V., Turner, D., Gossmann, C., Demkova, K., & Carroll, J. M. (2015). A muddle of models of motivation for using peer-to-peer economy systems. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)* (pp. 1085–1094). New York: ACM.



- Benjamin, W. (1934). *The author as producer*. Retrieved from <https://monoskop.org/images/9/93/BenjaminWalter19341999TheAuthorasProducer>
- Benkler, Y. (2002). A speakers corner under the sun. In N. Elkin-Kore, N. Netanel, & C. Edwin Baker (Eds.), *The commodification of information: Political, social, and cultural ramifications* pp. 291-317. London: Kluwer.
- Benkler, Y. (2006). *The wealth of networks: How social production transforms markets and freedom*. New Haven, CT: Yale University Press.
- Benkler, Y. (2016). When von Hippel innovation met the networked environment. In D. Harhoff & K. R. Lakhani (Eds.), *Revolutionizing innovation: Users, communities, and open innovation* (pp. 196–204). Cambridge, MA: The MIT Press.
- Bense, M. (1960). *Aesthetica IV: Programmierung des Schönen: Allgemeine Texttheorie und Textästhetik*. Baden-Baden: Agis.
- Beuys, J. (1970). Beuys vs Gehlen: Kunst - Antikunst. *YouTube*. Posted on September 25, 2017, [www.youtube.com/watch?v=2VLsaY4KGYs](http://www.youtube.com/watch?v=2VLsaY4KGYs)
- Beuys, J. (1974). I am searching for field character. In Caroline Tisdall (Ed. & Trans), *Art into society, society into art*. London: Institute of Contemporary Art.
- Beuys, J. (1992). *Kunst=Kapital: Achberger Vorträge*. Wangen/Allgäu: FIU Verlag.
- Beuys, J. (2004). *What is art? Conversation with Joseph Beuys*. Forest Row: Clairview Books.
- Beuys, J. (2006). *Mein Dank an Wilhelm Lehmbruck*. Munich: Mosel.
- Beveridge, R., & Koch, P. (2017). The post-political trap? Reflections on politics, agency and the city The post-political trap? *Crit Comment Urban Stud* 54, 31–43.
- Billing, J., Lind, M., & Nilsson, L. (2007). *Taking the matter into common hands: On contemporary art and collaborative practices*. London: Black Dog.
- Bishop, C. (2012). *Artificial hells: Participatory art and the politics of spectatorship*. London: Verso.
- Blaser, M., & de la Cadena, M. (2017). The uncommons: An introduction. *Anthropologica*, 59(2), 185–193. Retrieved from <http://www.jstor.org/stable/26350499>

- Bloch E (1995). *The principle of hope* (Vol. 3, N. Plaice, S. Plaice, and P. Knight, Trans.). Cambridge, MA: MIT Press. (Original work published 1959)
- Bloch, E. (2000). *The spirit of utopia* (Anthony A. Nassar, Trans.). Stanford, CA: Stanford University Press.
- Boggs, C. (1977). Marxism, prefigurative communism and the problem of workers' control. *Radical America*, 6(Winter), 99–122.
- Bonnett, A. (1992). Art, ideology, and everyday space: Subversive tendencies from Dada to postmodernism. *Environment and Planning D: Society and Space*, 10, 69–86.
- Bontje, J. (2014, April 9). Ethereum—decentralized autonomous organizations. *Slideshare*. Retrieved from <http://www.slideshare.net/mids106/ethereum-decentralized-autonomous-organizations>
- Borch, C., & Kornberg, M. (2015). Introduction: The urban commons. In C. Borch & M. Kornberg (Eds.), *Urban commons: Rethinking the city* (pp. 1–15). London: Routledge.
- Borggreen, G., & Gade, R., (2013). *Performing archives/archives of performance*. Copenhagen: PSi & Københavns universitet.
- Botsman, R., & Rogers, R. (2010). *What's mine is yours*. New York: Harper Business.
- Brandt, K. (1986). New social movements as a metapolitical challenge: The social and political impact of a new historical type of protest. *Thesis Eleven*, 15, 60–68.
- Bratton, B. (2016). *The stack: On software and sovereignty*. Cambridge, MA: MIT Press.
- Bradfield, M. (2020) “Ordinary extraordinary: the para/pata:institutionalism of Critical Practice”, *Journal of Visual Art Practice*, 19:1, 38-52, DOI: 10.1080/14702029.2020.1728049
- Brecht, B. (1964). Der Rundfunk als Kommunikationsapparat. In *Bjitter des HessischenLandestheaters Darmstadt* (No. 16, Jon Willett Ed. & Trans.). Brecht on Theatre. New York: Hill and Wang. (Original work published 1932)
- Breines, W. (1989). *Community and organization in the new left, 1962-68: The great refusal*. Rutgers University Press.

- Brekke, J. K. (2018). *Three postcards from the world of decentralised money* (I. Gloerich, G. Lovink, & P. de Vries, Eds.). Amsterdam: Institute of Network Cultures.
- Brekke, J. K. (2019). *Dissassembling the trust machine: Three cuts on the political matter of blockchain*. [Unpublished doctoral dissertation]. University of Durham.
- Browne, C., & Diehl, P. (2019). Conceptualising the political imaginary: An introduction to the special issue. *Soc Epistemology*, 33(5), 393–397.
- Buchloh, B. (1990). Conceptual art 1962–1969: From the aesthetics of administration to the critique of institutions. *October*, 55, 105–143.
- Buden, B. (2009). Criticism without crisis: Crisis without criticism. In G. Ray & G. Raunig (Eds.), *Art and contemporary critical practice / Reinventing Institutional Critique* (pp. 33–42). London: MayFly.
- Buechler, S. (1995). New social movement theories. *The Sociological Quarterly*, 36(3), 441–464.
- Buechler, S. M. (2000). *Social movements in advanced capitalism*. New York: Oxford University Press.
- Burger, P. (1984). *Theory of the avant-garde*. Minneapolis: Minnesota University Press.
- Burliuk, D., et al. (1988). From a trap for judges, 2. In Anna Lawton & Herbert Eagle (Eds. & Trans.), *Russian Futurism through Its Manifestoes, 1912–1928* (pp. 53–54). Ithaca: Publisher.
- Burliuk, D., Kruchenykh, A., Mayakovsky, V., & Khlebnikov, V. (1917). *A slap in the face of public taste*. Retrieved from <https://www.marxists.org/subject/art/literature/mayakovsky/1917/slap-in-face-public-taste.htm>
- Burrell, J. (2015). How the machine “thinks”: Understanding opacity in machine learning algorithms. *Ssrn* (June), 1–12.
- Büscher, B. (2004). Vom Auftauchen des Computers in der Kunst. In B. Büscher (Ed.), *Ästhetik als Programm : Max Bense ; Daten und Streuungen* pp. 201–222. Berlin: Vice Versa.

- Buterin, V. (2013, September 19). Bootstrapping a decentralized autonomous corporation: Part I. *Bitcoin Magazine*. <http://bitcoinmagazine.com/7050/bootstrapping-a-decentralized-autonomous-corporation-part-i/>
- Buterin, V. (2015). Visions, part I: The value of blockchain technology. *Ethereum Foundation Blog*. Retrieved on November 11, 2020 from <https://blog.ethereum.org/2015/04/13/visions-part-1-the-value-of-block-chain-technology/>
- Butler, J. (1993). *Bodies that matter: On the discursive limits of sex*. London: Routledge.
- Butler, J. (1997). *Excitable speech: A politics of the performative*. New York: Routledge.
- Callon, M. (1998). Introduction: The embeddedness of economic markets in economics. *The Sociological Review*, 46(1, suppl.), 1–57.
- Campagna, F., & Campiglio, E. (2012). *What we are fighting for: A radical collective manifesto*. London: Pluto Press.
- Candy, L. & Edmonds, E. (2018). “Practice-Based Research in the Creative Arts: Foundations and Futures from the Front Line”. *Leonardo*. 51. 63-69. 10.1162/LEON\_a\_01471.
- Carey, J. (1989). *Communication as culture: Essays on media and society*. Boston: Unwin Hyman.
- Carruthers, B. G., & Ariovich, L. (2004). The sociology of property rights. *Annual Review of Sociology*, 30(1), 23–46.
- Carter, J., & Morland, D. (2004). Anti-capitalism: Are we all anarchists now? In J. Carter & D. Morland (Eds.), *Anti-capitalist Britain* (pp. 8–28). Cheltenham: New Clarion Press.
- Castells, M. (1983a). *The city and the grassroots*. Berkeley: University of California Press.
- Castells, M. (2003). La interaccio entre les tecnologies de la informacio y la comunicacio y la societat xarxa: un canvi historic. *Coneixement i societat*, 1, 8–21.
- Castells, M. (2009). *Communication Power*. Oxford University Press.
- Castells, M. (2015). *Networks of outrage and hope*. Cambridge: Polity Press.

- Castoriadis, C. (1997). *World in fragments: Writings on politics, society, psychoanalysis, and the imagination* (David Ames Curtis, Trans.). Stanford, CA: Stanford University Press.
- Catalini, C., & Gans, J. (2019). Some simple economics of the blockchain. Rotman School of Management Working Paper No. 2874598; *MIT Sloan Research Paper* No. 5191–16. Retrieved from <https://papers.ssrn.com/sol3/papers.cfm?abstractid=2874598>
- Chafee, Z. (1948). Government and mass communications: A report from the commission on freedom of the press. *The ANNALS of the American Academy of Political and Social Science*, 258(1), 160–161.
- Chang Kyung-Sup (2009) “Compressed modernity and its discontents: South Korean society in transition”, *Economy and Society*, 28:1, 30-55,
- Chatterton, P. (2010). Seeking the urban common: Furthering the debate on spatial justice. *City*, 14(6), 625–628.
- Chohan, U. W., T (December 4, 2017). The decentralized autonomous organization and governance issues. *SSRN*. Retrieved from <https://ssrn.com/abstract=3082055> or <http://dx.doi.org/10.2139/ssrn.3082055>
- Cila, N., Ferri, G., de Waal, M., Gloerich, I., & Karpinski, T. (2020, April 21). The blockchain and the commons: Dilemmas in the design of local platforms. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. New York: Association for Computing Machinery.
- Circles (n.d) *Circles*. Retrieved on September 23<sup>rd</sup>, 2022 <https://circles.garden/welcome>
- Coghlan, D. (2017). “How might we learn about the philosophy of ODC research from 24 volumes of ROCD? An invitation to interiority”. In (Rami) Shani, A. B., Noumair, D. A. (Eds.), *Research in organizational change and development* (Vol. 25, pp. 335–361). Bingley, UK: Emerald.
- Coghlan, D. (2019). Demystifying action research. In Zuber-Skerritt, O., & Wood, L. (Eds.). *Action learning and action research: Genres and approaches* (pp. 83–96) Emerald Publishing: Bingley, Uk

- Colebrook, C. (2005). *Philosophy and post-structuralist theory: From Kant to Deleuze*.  
Edinburgh: Edinburgh University Press.
- Collins, P. H. (1990) *Black Feminist Thought*. Cambridge, MA: Unwin Hyman.
- Comben, J. (2019, 15 July). Top 5 cheapest countries to mine bitcoin. *Bitcoinist*. Retrieved from <https://bitcoinist.com/top-5-cheapest-countries-to-mine-bitcoin/>
- Cook S., & Yanow, D. (1993). Culture and organizational learning. *Journal of Management Inquiry*, 2, 373–390.
- Cox, A. (2005). What are communities of practice? A comparative review of four seminal works. *Journal of Information Science*, 31, 527–540.
- Cramer, F. (2014) “What Is ‘Post-digital’?,” in *A Peer-Reviewed Journal About* 3, no. 1  
Retrieved from <http://www.aprja.net/?p=1318> .
- Crowther, P. (2008). Ontology and aesthetics of digital art. *The Journal of Aesthetics and Art Criticism*, 66(2), 161–170.
- CTM, (n.d.) *CTM*. Retrieved on September 19<sup>th</sup>, 2022 <https://www.ctm-festival.de/about/what-we-do>
- Cueto, B. (2018). This site is under Revolution. In *6th Moscow Biennale for young art* (pp. 27–55). Moscow: MMOMA.
- Cueto, B., & Hendrikx, B. (2017). *Authenticity? Observations & artistic strategies in the post-digital age*. Amsterdam: Valiz.
- Damiani, D., di Vimercati, S. D. C., Pradoschi, S., Samarati, P., & Violante, F. (2002). A reputation-based approach for choosing reliable resources in peer-to-peer networks. In *Proc. 9th ACM Conf. Comput. Commun. Secur* (pp. 207–216). City: Publisher.
- DAOWO (n.d.) *DAOWO*. Retrieved September 19<sup>th</sup> 2022 <https://www.daowo.org/>
- Davidson, S., de Filippi, P., & Potts, J. (2018). Blockchains and the economic institutions of capitalism. *Journal of Institutional Economics*, 14(4), 639–658.
- De Angelis, M. (2007). *The beginning of history: Value struggles and global capital*.  
London: Pluto.

- De Filippi, P. (2015). Translating commons-based peer production values into metrics: Towards commons-based crypto-currencies. In David Lee Kuo Chuen (Ed.), *The handbook of digital currency*. SSRN. Retrieved from <https://ssrn.com/abstract=2725415>
- De Filippi, P., & Hassan, S. (2016). Blockchain technology as a regulatory technology: From code is law to law is code. *First Monday*, 21(12). Retrieved from <https://firstmonday.org/ojs/index.php/fm/article/view/7113/5657>
- De Filippi, P. & Loveluck, B. (2016). The invisible politics of Bitcoin: governance crisis of a decentralised infrastructure. *Internet Policy Review*, 5(3).
- De Filippi, P.; Schuppli, B.; Choi, C.; Reyes, C. ;Divissenko, N. (2018) “Regulatory Framework for Token Sales: An Overview of Relevant Laws and Regulations in Different Jurisdictions.” *Research Report Blockchain Research Institute and COALA*.
- De Filippi, P., & Wright, A. (2018). *Blockchain and the law: The rule of code*. Old Saybrook, CN: Tantor Media.
- Delmas, C. (2018). *A duty to resist: When disobedience should be uncivil*. New York: Oxford University Press.
- Derrida, J. (1998). *Archive fever: A Freudian impression*. Chicago: University of Chicago Press.
- Deutsche, R. (1996). *Evictions: Art and spatial politics*. Chicago: Graham Foundation for Advanced Studies in the Fine Arts MIT Press.
- De Vries, P. (2019). *Algorithmic anxiety in contemporary art: A Kierkegaardian inquiry into the imaginary of possibility*. Amsterdam: Institute of Network Cultures.
- Dewey, J. (1916/2008). *Democracy and education: An introduction to the philosophy of education*. New York: Macmillan.
- Dickens, L. & Watkins, K. (1999). “Action Research: Rethinking Lewin”. *Management Learning*. 30. 127-140.DOI 10.1177/1350507699302002.
- Dolata, U., & Schrape, J. F. (2018). *Collectivity and power on the internet: A sociological perspective*. New York: Springer.

- Domańska, E. (2017). Prefigurative art and micro-utopias. *Public History Weekly*, 14, Retrieved from <https://public-history-weekly.degruyter.com/5-2017-14/prefigurative-art-micro-utopias/>
- Dombroski, K., Healy, S., & McKinnon, K. (2019). Care-full community economies. In C. Bauhardt & W. Harcourt (Eds.), *Feminist political ecology and the economics of care: In search of economic alternatives*. Routledge Studies in Ecological Economics Series. Abingdon: Routledge.
- Drucker, J. (2005). Interactive, algorithmic, networked: Aesthetics of new media art. In A. Chandler & N. Neumark (Eds.), *At a distance: Precursors to art and activism on the internet* (pp. 35–59). Cambridge, MA: MIT Press.
- El Faqir, Y., Arroyo, J., & Hassan, S. (2020, August 25). An overview of decentralized autonomous organizations on the blockchain. *Proceedings of the 16th International Symposium on Open Collaboration. OpenSym 2020: 16th International Symposium on Open Collaboration*. New York: Association for Computing Machinery.
- Epstein, B. (1991). *Political protest and cultural revolution* Berkeley: University of California Press.
- Expósito, M. (2009). Inside and outside of the institution: Self-valorisation and montage in contemporary art. In G. Ray & G. Raunig (Eds.), *Art and contemporary critical practice: Reinventing Institutional Critique* (pp. 141–152). London: MayFly.
- Fairfield, J. A. T. (2015). Bitproperty. *Southern California Law Review*, 88(4), 805–874.
- Fairfield, J. A. T. (2017). *Owned: Property, privacy, and the new digital serfdom*. Cambridge: Cambridge University Press.
- Fajans, J. (1997). *They make themselves: Work and play among the Baining of Papua New Guinea*. Chicago: University of Chicago Press.
- Farnsworth, V, Kleanthous, I. and Wenger-Trayner, E (2016) “Communities of practice as asocial theory of learning: A conversation with Etienne Wenger.” *British Journal of Educational Studies*, 64 (2). pp. 139-160.



- Foster, H. (1982). "Subversive Signs" Art in America. Reprinted in C. Harrison & P. Wood (Eds.), *Art in theory (1900–1990): An anthology of changing ideas* Oxford: Blackwell. Retrieved from <http://www.allanmccollum.net/allanmcnyc/amcpdfs/McCollum-Foster.pdf>
- Foucault, M. (1974). *The archaeology of knowledge*. London: Tavistock Publications.
- Foucault, M. (1997). *The politics of truth* (S. Lotringer & L. Hochroch, Eds.). New York: Semiotext(e).
- Francisco, K., & Swanson, D. (2018). The supply chain has no clothes: Technology adoption of blockchain for supply chain transparency. *Logistics*, 2, 2.
- Fraser, A. (2005). From the critique of institutions to an institution of critique. *Artforum*, XLIV(1), 278–283.
- Freeman, J. (1972). The tyranny of structurelessness. *Berkeley Journal of Sociology*, 17, 151–164. Retrieved April 20, 2020, from [www.jstor.org/stable/41035187](http://www.jstor.org/stable/41035187)
- Friedman, K. (2005). The wealth and poverty of networks. In A. Chandler & N. Neumark (Eds.), *At a distance: Precursors to art and activism on the internet* (pp. 409–422). Cambridge, MA: MIT Press.
- Forte, A., Larco, V., & Bruckman, A. (2009). Decentralization in Wikipedia governance. *Journal of Management Information Systems*, 26(1), 49–72.
- Foster, H. (2004). An archival impulse. *October*, 110, 3–22.
- Fuller, A. (2007). Critiquing theories of learning and communities of practice. In N. Jewson, J. Hughes, & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 17–29). Oxon: Routledge.
- Fuster, M. (2012) "The Free Culture and 15M Movements in Spain: Composition, Social Networks and Synergies" in *Social Movement Studies*, 11:3-4, 386-392
- Gaiger, J. (2009). Dismantling the frame: Site-specific art and aesthetic autonomy. *British Journal of Aesthetics*, 49(1), 43–58.
- Galloway, A. R. (2006). *Protocol: How control exists after decentralization*. Cambridge, MA: MIT Press.

- Gansky, L. (2010). *The mesh: Why the future of business is sharing*. New York: Penguin.
- Garcia, D., & Lovink, G. (1997). *The ABC of tactical media*. *Nettime*. Retrieved from <https://www.nettime.org/Lists-Archives/nettime-1-9705/msg00096.html>
- Garrod, J. Z. (2019). On the property of blockchains: Comments on an emerging literature. *Economy and Society*, 48(4), 602–623.
- Gatens, M., & Lloyd, G. (1999). *Collective imaginings: Spinoza, past and present*. New York: Routledge.
- Ghidini, M. (2019). Curating on the web: The evolution of platforms as spaces for producing and disseminating web-based art. *Arts*, 8(3), 78.
- Gibson-Graham, J. K. (1996). *The end of capitalism (as we knew it)*. Minneapolis: University of Minnesota Press.
- Gibson-Graham, J. K. (2006). *A postcapitalist politics*. Minneapolis: University of Minnesota Press.
- Gordon, U. (2018). Prefigurative politics between ethical practice and absent promise. *Political Studies*, 66(2), 521–537.
- Goriunova, O. (2016). Participatory platforms and the emergence of art. In C. Paul (Ed.), *A companion to digital art* (pp. 297–309). New Jersey: John Wiley & Sons.
- Graeber, D. (2001). *Toward an anthropological theory of value*. Chicago: Prickly Paradigm Press.
- Graeber, D. (2002). “A movement of movements: The new anarchists” *New Left Review* 13, 61–73.
- Graeber, D. (2004). *Fragments of an anarchist anthropology*. Chicago: Prickly Paradigm Press.
- Graeber, D. (2009). Anarchism, academia, and the avant-garde. In R. Amster et al. (Eds.), *Contemporary anarchist studies: An introductory anthology of anarchy in the academy* (pp. 103–112). London: Routledge.
- Grant, J. (2014). On the critique of political imaginaries. *Eur J Polit Theory*, 13, 408–426.

- Grau, O. (2016). New media art. *Oxford Bibliographies Online Datasets*. doi: 10.1093/obo/9780199920105-0082
- Gramsci, A. (2010). *Volume I: Prison Notebooks*: (J. A. Buttigieg, Ed. & Trans.). Columbia University Press.
- Greenfield, A. (2017). *Radical technologies*. New York: Verso.
- Grindon, G. (2011). Surrealism, dada, and the refusal of work: Autonomy, activism, and social participation in the radical avant-garde. *Oxford Art Journal*, 34(1), 79–96.
- Groys, B. (2014). On art activism. *E-flux Journal*, 56. Retrieved from <https://www.e-flux.com/journal/56/60343/on-art-activism/>
- Gsöllpointner, S. (2016). Digital synesthesia: A model for the aesthetics of digital art. In *Digital synesthesia*. Berlin: De Gruyter.
- Habermas, J. (1975). *Legitimation crisis*. Boston: Beacon.
- Haiven, M. (2018). *Art after money, money after art: Creative strategies against financialization*. London: Pluto Press.
- Haiven, M., & Khasnabish, A. (2014). *The radical imagination: Social movement research in the age of austerity*. London: Zed Books.
- Hamari, J., Sjöklint, M., & Ukkonen, A. (2015). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*, 67(9), 2047–2059.
- Harcourt, W. (2014). Women and the European crisis. *The Economic and Labour Relations Review*, 25(3), 455–464.
- Hardt, M. (2009). Production and distribution of the common. In P. Gielen & P. de Bruyne (Eds.), *Being an artist in post-Fordist times* (pp. 45–54). Rotterdam: NAI Publishers.
- Hart, S., Shorin, T., & Lotti, L. (2020). Squad wealth. *Otherinter.net*. Retrieved May 19, 2021, from <https://otherinter.net/squad-wealth/>
- Hasan, S., Ben-David, Y., Fanti, G., Brewer, E., & Shenker, S. (2013). Building dissent networks: Towards effective countermeasures against large-scale communications

- blackouts. In *3rd USENIX Workshop on Free and Open Communications on the Internet*.
- Haunss, S., & Leach, D. (2007). Social movement scenes: Infrastructures of opposition in civil society. In D. Purdue (Ed.), *Civil societies and social movements: Potentials and problems* (pp. 71–87). London: Routledge.
- Hawkins, H. (2013). Geography and art: An expanding field; Site, the body and practice. *Progress in Human Geography*, 37(1), 52–71.
- Hayes, A. (2019). The socio-technological lives of Bitcoin. *Theory, Culture & Society*, 36(4), 49–72.
- Hayles, K. (2005). *My mother was a computer: Digital subjects and literary texts*. Chicago: University of Chicago Press.
- Healy, S. (2019). “Biofuels, Ex-felons, and Empower, a Worker-Owned Cooperative: Performing Enterprises Differently” in Roelvink, G., St. Martin, K., & Gibson-Graham, J. K. (Eds.). (2015). *Making Other Worlds Possible: Performing Diverse Economies*. University of Minnesota Press. (pp. 98-126)
- Heeks, R., M. Amalia, Kintu, R. & Shah, N. (2013) Inclusive Innovation: Definition, Conceptualisation and Future Research Priorities. Centre for Development Informatics: Manchester.
- Heidegger, M. (2000). *Introduction to metaphysics*. New Haven, CT: Yale University Press. (Original work published 1953)
- Helmond, A. (2015). The platformization of the web: Making web data platform ready. *Social Media + Society*,
- Hess, D. (2018). Energy democracy and social movements: A multi-coalition perspective on the politics of sustainability transitions. *Energy Research & Social Science* 40, 177–189.
- von Hippel, E. (2005). *Democratizing innovation*. Cambridge, MA: MIT Press.

- Hirsch, J. (1988) "The Crisis of Fordism, Transformations of the 'Keynesian' Security State, and New Social Movements." in ed. by Kriesberg, L. & Greenwich Research in *Social Movements, Conflicts and Change* (10) 43-55.
- Hoeven, H., & Albada, J. (1996). *Lost memory: Libraries and archives destroyed in the twentieth century*. Paris: Unesco.
- Holloway, J. (2010). *Crack capitalism*. London: Pluto Press.
- Holmes, B. (2009) "Extradisciplinary Investigations: Towards a New Critique of Institutions" in *Art and Contemporary Critical Practice: Reinventing Institutional Critique*\_Ed. Ray, G. and Raunig, G. London : MayFly pp. 53-62
- Hunt, S.A., Benford, R. D. & Snow, D.A. (1994) "Identity Fields: Framing Processes and the Social Construction of Movement Identities." pp. 185-208 in *New Social Movements*, ed. by Larana, Johnston, and Gusfield. Philadelphia: Temple University Press
- Husain, S. O., Franklin, A., & Roep, D. (2020). The political imaginaries of blockchain projects: Discerning the expressions of an emerging ecosystem. *Sustain Sci*, 15, 379–394.
- Huckle, S., & White, M. (2016). Socialism and the blockchain. *Future Internet*, 8(4), 49.
- Ishmaev, G. (2017). Blockchain technology as an institution of property. *Metaphilosophy*, 48(5), 666–686.
- Jackson, S. (2021) "Performance, public (re)assembly and civic reenactment" Eriksson, B., Stage, C., & Valtysson, B. (Eds.). (2021). *Cultures of Participation: Arts, Digital Media and Cultural Institutions*. Taylor & Francis.
- Jameson, F. (2005). *Archaeologies of the future: The desire called utopia and other science fictions*. New York: Verso.
- Johnston, D., et al. (2014, June 9). The general theory of decentralized applications, DApps. *GitHub*. Retrieved from <https://github.com/DavidJohnstonCEO/DecentralizedApplications>

- Jordan, C. (2013). The evolution of social sculpture in the United States: Joseph Beuys and the work of Suzanne Lacy and Rick Lowe. *Public Art Dialogue*, 3(2), 144–167.
- Juarez, P., Balázs, B., Trantini, F., Korzenszky, A., & Becerra, L. (2016). “Transformative social innovation: La Vía Campesina”; *A summary report of the case study on La Vía Campesina*. Retrieved from <http://www.transitsocialinnovation.eu/>
- Jun, M. (2018). Blockchain government: A next form of infrastructure for the twenty-first century. *Journal of Open Innovation: Technology, Market, and Complexity*, 4(1), 7.
- Juris, J. (2008). *Networking futures*. Durham, NC: Duke University Press.
- Kaegi (2016, Jan. 1). Reenactment. *Rimini-Protokoll*. Retrieved November 24, 2021, from <https://www.rimini-protokoll.de/website/en/text/reenactment>
- Kaethler, M. (2019). Curating creative communities of practice: The role of ambiguity. *Journal of Organization Design*, 8, 10.
- Kavada, A. (2018). Connective or collective? The intersection between online crowds and social movements in contemporary activism. In G. Meikle (Ed.), *The Routledge companion to media and activism* (pp. 108–117). New York: Routledge.
- Kester, G. (2019) ”Action and the critique of action in Theodor W. Adorno and Joseph Beuys” *The art of direct action - social sculpture and beyond*. Pp.65-99. New York, NY: Sternberg Press.
- Kester, G. H. (2011). *The one and the many: Contemporary collaborative art in a global context*. Durham, NC: Duke University Press.
- Kinna, R. (2017). Utopianism and prefiguration. In S. D. Chrostowska & J. Ingram (Eds.), *Political uses of utopia: New marxist, anarchist, and radical democratic perspectives* (pp. 198–215). New York: Columbia University Press.
- Kleinmichel, P. (2019). The symbolic excess of art activism. In *The art of direct action: Social sculpture and beyond* (pp. 211–238). New York: Sternberg Press.
- Koo, S. (2015, April 2). South Korea’s invasion of privacy. *The New York Times*. Retrieved from <http://www.nytimes.com>

- Koselleck, R. (2002). *The practice of conceptual history: Timing history, spacing concepts*. Stanford, CA: Stanford University Press.
- Kouhizadeh, M., & Sarkis, J. (2018). Blockchain practices, potentials, and perspectives in greening supply chains. *Sustainability*, 10, pp36-52.
- Krabbe, R. (2015). Building trust: Exploring the role of community exchange and reputation. *Int J of Community Currency Res*, 19, 62–71.
- Kundu, R., & Kalin, N. M. (2015). Participating in the neoliberal art museum. *Studies in Art Education*, 57(1), 39–52.
- Kwastek, K. (2013). *Aesthetics of Interaction in Digital Art*. Cambridge, MA: MIT Press.
- Laclau, E., & Mouffe, C. (1985). *Hegemony and socialist strategy: Towards a radical democratic politics*. London: Verso.
- Lakhani, K. (2016). *Revolutionizing innovation: Users, communities, and open innovation*. Cambridge, MA: MIT Press.
- Latimer, J., & Skeggs, B. (2011). The politics of imagination: keeping open and critical. *The Sociological Review (Keele)*, 59(3), 393–410.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press.
- Lear, B., & Schlembach, R. (2012). If you don't let us dream, we won't let you sleep? In A. Lunghi & S. Wheeler (Eds.), *Occupy everything: Reflections on why it's kicking off everywhere* (pp. 43–44). Brooklyn: Minor Compositions.
- Leistert, O. (2018). On the questions of blockchain activism. In M. Graham (Ed.), *Media Activism Reader* (p. 379). Oxfordshire, England: Routledge
- Lenin, V. (1917). *The state and revolution*. Retrieved from <http://marx.be/sites/default/files/documents/EN/texts/srandsq.PDF>
- Lind, M. (2010). *Maria Lind: Selected writing*. Berlin: Sternberg Press.
- Lindkvist, L. (2005). Knowledge communities and knowledge collectivities: A typology of knowledge work in groups. *J Manag Stud*, 42, 1189–1210.

- Levine, P. (2007). Collective action, civic engagement, and the knowledge commons. In E. Ostrom & C. Hess (Eds.), *Understanding knowledge as a commons: From theory to practice* (pp. 247-277). Cambridge, MA: MIT Press.
- Levitas, R. (1990). Ernst Bloch on abstract and concrete utopia. *Utopian Studies*, 1(2), 13–26.
- LeWitt, S. (1967, June). Paragraphs on conceptual art. *Artforum*. Retrieved from <https://www.artforum.com/print/196706/paragraphs-on-conceptual-art-36719>
- Lippard, L. (1973). *Six years: The dematerialization of art*. New York: Praeger.
- Lippard, L. (1984). Trojan-horses: Activist art and power. In Marcia Tucker & Brian Wallis (Eds.), *Art after modernism: Rethinking representation*. New York: David R Godine. Retrieved from <http://voidnetwork.gr/wp-content/uploads/2016/09/Trojan-Horses-Activist-Art-and-Power-Lucy-Lippard.pdf>
- Loftus, A. (2009). Intervening in the environment of the everyday. *Geoforum*, 40(3), 326–334.
- Lorde, A. (1984). *Sister Outsider: Essays and Speeches*. Crossing Press.
- Lotti, L. (2018). “Financialization as a medium: speculative notes on post-blockchain art” ” ed. By Gloerich, I., Lovink, G., & de Vries, P. (MoneyLab reader 2: overcoming the hype. Amsterdam: Institute of Network Cultures
- Lovink, G., & Rossiter, N. (2018). *Organization after social media*. Brooklyn, NY: Minor Compositions.
- Lütticken, S. (2017). *Cultural revolution: Aesthetic practice after autonomy*. Sternberg Press: Berlin.
- Maeckelbergh M.E. (2009), *The will of the many: How the alterglobalization movement is changing the face of democracy*. London: Pluto Press.
- Maeckelbergh, M. (2011). Doing is believing: Prefiguration as strategic practice in the alterglobalization movement. *Social Movement Studies*, 10(1), 1–20.



- Maeckelbergh, M. (2016). The prefigurative turn: The time and place of social movement practice. In A. C. Dinerstein (Ed.), *Social sciences for an other politics: Women theorizing without parachutes* (pp. 121–134). London: Palgrave Macmillan.
- Mairesse, F & Desvallées, A 2007, *Vers une redéfinition du musée*, L'Harmattan, Paris
- Marchart, O. (2019). *Conflictual aesthetics: Artistic activism and the public sphere*. Berlin: Sternberg Press.
- Marx, K. (1978). *Capital: A critique of political economy*. London: Penguin Books in association with New Left Review. (Original work published 1867)
- Marx, K. (1875). *Critique of the Gotha programme*. Part I. Retrieved from <https://www.marxists.org/archive/marx/works/1875/gotha/ch01.htm>
- Massey, D. (1994). *Space, Place and Gender*. Cambridge, UK: Polity Press
- Massey, D. B. (2005). *For Space*. California, US: SAGE Publications.
- Matonis, J. (2012, September 27). Bitcoin foundation launches to drive bitcoin's advancement. *Forbes*. Retrieved from <https://www.forbes.com/sites/jonmatonis/2012/09/27/bitcoin-foundation-launches-to-drive-bitcoinsadvancement/#d7a05d8d8683>
- McGuigan, J. (1996). *Culture and the public sphere*. London: Routledge.
- McKee, Y. (2017). *Strike art*. London: Verso.
- McLagan, M., & McKee, Y. (2012). *Sensible politics: The visual culture of nongovernmental activism*. New York: Zone Books.
- McNevin, A. (2011). *Contesting citizenship: Irregular migrants and new frontiers of the political*. New York: Columbia University Press.
- Medosch, A. (2016). Shockwaves in the new world order of information and communication. In C. Paul (Ed.), *A Companion to Digital Art* (pp. 355–383). New Jersey: John Wiley & Sons.
- Melucci, A. (1989). *Nomads of the present: Social movements and individual needs*. Philadelphia: Temple University Press.

- Melucci, A. (1994). A strange kind of newness: What's "new" in new social movements. In E. Laraña (Ed.), *New social movements: From ideology to identity* (pp. 101–130). Philadelphia: Temple University Press.
- Melucci, A. (1996). *Challenging codes: Collective action in the information age*. Cambridge: Cambridge University Press.
- Meyer, D. and Whittier N. (1994). "Social Movement Spillover." *Social Problems* 4:277-298
- Mill, S. (1848). *Principles of political economy*. Retrieved from [www.gutenberg.org/files/30107/30107-pdf.pdf](http://www.gutenberg.org/files/30107/30107-pdf.pdf)
- Mohanty, C. T., & Miraglia, S. (2012). Gendering justice, building alternative futures. *ALTERNATIVES*, 99.
- Mollona, M. (2021). *Art/commons: Anthropology beyond capitalism*. London: ZED Books & Bloomsbury Publishing.
- Möntmann, N. (2008).
- Moody, F. (1999). *The visionary position*. New York: Times Business.
- More, T. (2009). *Utopia*. Harlow: Penguin Books.
- Mørk, B. E., Hoholm, T., Maaninen-Olsson, E., & Aanestad, M. (2012). Changing practice through boundary organizing: A case from medical R&D. *Human Relations*, 65, 263–288.
- Morris, A. D. (1992) "Political Consciousness and Collective Action." in *Frontiers of Social Movement Theory*. Ed. by Morris and Mueller. 351-373 New Haven, CT: Yale University Press
- Morris, W. (1890). *News from nowhere*. North Charleston, SC: Createspace Independent Publishing Platform.
- Mouffe, C. (2000). *The democratic paradox*. Verso: London.
- Mouffe, C. (2005). *On the political*. East Sussex: Psychology Press.
- Mouffe, C. (2013). *Agonistics: Thinking the world politically*. London: Verso.
- Mukerji, C. (2014). The cultural power of tacit knowledge: Inarticulacy and Bourdieu's habitus. *American Journal of Cultural Sociology*, 2(3), 348–375.
- Muller, J. (2018). *The tyranny of metrics*. Princeton, NJ: Princeton University Press.

- Murillo, E. (2011). Communities of practice in the business and organization studies literature. *Information Research*, 16, 1.
- Nakamoto, S. (2008) *Bitcoin: A Peer-to-Peer Electronic Cash*
- Nair, M., & Sutter, D. (2018). The blockchain and increasing cooperative efficacy. *The Independent Review*, 22(4), 529–550.
- Nancy, J. L. (1991). *The inoperative community*. Minneapolis: University of Minnesota Press.
- Nelson, R., & Sampat, B. (2001). Making sense of institutions as a factor shaping economic performance. *Journal of Economic Behavior and Organisation*, 44(1), 31–54.
- Nikolakis, W., John, L., & Krishnan, H. (2018). How blockchain can shape sustainable global value chains: An evidence, verifiability, and enforceability (EVE) framework. *Sustainability*, 10, 3926.
- Nowotny, H. (2014). Engaging with the political imaginaries of science: Near misses and future targets. *Public Underst Sci*, 23, 16–20.
- Oja, S. N. and L. Smulyan (1989) “Collaborative action research: A developmental approach.” *American Journal of Educational Research*. 5(10):1044-1057 Falmer Press: Philadelphia.
- Oklopčic, Z. (2018). *Beyond the people: Social imaginary and constituent imagination*. Oxford: Oxford University Press.
- Oliveira, L., Zavolokina, L., Bauer, I., & Schwabe, G. (2018). *To token or not to token: Tools for understanding blockchain tokens*. S.n.
- Olsen, C. S. (2019). “Urban space and the politics of socially engaged art” *Progress in Human Geography* 43(6), 985–1000.
- Ølnes, S., Ubacht, J., & Janssen, M. (2017). Blockchain in government: Benefits and implications of distributed ledger technology for information sharing. *Government Information Quarterly*, 34(3), 355–364.
- Omi, M. and Winant H. (1986) *Racial Formation in the United States from the 1960s to the 1980s*. New York: Routledge

- Omidvar, O., & Kislov, R. (2014). "The Evolution of the Communities of Practice Approach: Toward Knowledgeability in a Landscape of Practice—An Interview with Etienne Wenger-Trayner." *Journal of Management Inquiry*, 23(3), 266–275.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge: Cambridge University Press.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Cambridge, MA: Harvard University Press.
- Paul, C. (2006). New media art and Institutional Critique: Networks vs. institutions. In J. Welshman & I. Graw (Eds.), *Institutional Critique and after: Soccas Symposium*. Zurich: JRP Ringier.
- Pazaitis, A., de Filippi, P., & Kostakis, V. (2017). Blockchain and value systems in the sharing economy: The illustrative case of Backfeed. *Technological Forecasting and Social Change*, 125, 105–115.
- Pellizzoni, L. (2020). Prefiguration, subtraction and emancipation. *Social Movement Studies*, pp. 1–16.
- Pels, D. (2002). *Property and power in social theory: A study in intellectual rivalry*. London: Routledge.
- Pérez-Orozco, A. (2014). *Subversión feminista de la economía: Aportes para un debate sobre el conflicto capital-vida*. Madrid: Traficantes de sueños.
- Perry, C., Zuber-Skerritt, O. (1994) "Doctorates by action research for senior practising managers". In: *Management Learning* 1 (1), 341-364
- Pias, C. (2016). Collective, Connectives, and 'Nonsense of Participation'. In A. Ganzert, R. Stock, M. Denecke, & I. Otto (Eds.), *ReClaiming Participation: Technology - Mediation - Collectivity* (pp. 23–38). Bielefeld: transcript Verlag.
- Pinder, D. (2011). Errant paths: The poetics and politics of walking. *Environment and Planning D: Society and Space*, 29(4), 672–692.

- Platero, R. (2014). *¿Es el análisis interseccional una metodología feminista y queer? Otras formas de (re) conocer: Reflexiones, herramientas y aplicaciones desde la investigación feminista*. Donostia-San Sebastian: Hegoa.
- Polletta, F. (2005). How participatory democracy became white: Culture and organizational choice. *Mobilization: An International Quarterly* 10(2), 271–288.
- Portmann M., and Pirzada A. A., "Wireless Mesh Networks for Public Safety and Crisis Management Applications," in *IEEE Internet Computing*, vol. 12, no. 1, pp. 18-25, Jan.-Feb. 2008.
- Posner, E., & Weyl, E. (2018). *Radical markets: Uprooting capitalism and democracy for a just society*. Princeton, NJ: Princeton University Press.
- Martin Puchner. (2006). *Poetry of the Revolution: Marx, Manifestos, and the Avant-Gardes*. Princeton University Press. <http://www.jstor.org/stable/j.ctt5hhpz1>
- Rancière, J. (1991). *The ignorant schoolmaster: Five lessons in intellectual emancipation*. Stanford, CA: Stanford University Press.
- Rancière, J (2013 [2004]) *The Politics of Aesthetics* London: Bloomsbury Academic.
- Rancière, J. (2006). *The politics of aesthetics*. London: Continuum.
- Rancière, J. (2010). *Dissensus: On politics and aesthetics* (S. Corcoran Ed.). London: Continuum.
- Ranganathan, S. R. (1931). *The five laws of library science*. Retrieved from <http://catalog.hathitrust.org/api/volumes/oclc/1293631.html>
- Raven, R., Kern, F., Verhees, B., & Smith, A. (2016). Niche construction and empowerment through socio-political work: A meta-analysis of six low-carbon technology cases. *Environmental Innovation and Societal Transitions*, 18, 164–180.
- Rea, A., Kronovet, D., Fischer, A., and Rose, J. (2020). *COLONY Technical White Paper*. Retrieved from <https://colony.io/whitepaper.pdf>
- Reed, T. V. (2005). *The arts of protest: Culture and activism from the civil rights movement to the streets of Seattle*. Minneapolis: University of Minnesota Press.
- Reijers, W., O’Brolchain, F., & Haynes, P. (2016). Governance in blockchain technologies & social contract theories. *Ledger*, 1, 134–151.

- Reilly, M. (2018). *Curatorial activism: Towards an ethics of curating*. Thames & Hudson.
- Resnick, P., Kuwabara, K., Zeckhauser, R., & Friedman, E. (2000). Reputation systems. *Commun. ACM*, 43(12), 45–48.
- Rheingold, H. (1995). *Tools for thought: The history and future of mind-expanding technology*. Cambridge, MA: MIT Press.
- Ricardo, D. (1821). On the principles of political economy and taxation. *McMaster University Archive for the History of Economic Thought*. Retrieved from <https://EconPapers.repec.org/RePEc:hay:hetboo:ricardo1821>
- Richardson-Ngwenya, P., & Nightingale, A. J. (2018). Diverse ethics for diverse economies. In C. Bauhardt & W. Harcourt (Eds.), *Feminist political ecology and the economics of care* (pp. 131–161). London: Routledge.
- Richter, D. & Birchall, M. (2015) Editorial in *OnCurating* Issue 25 Social Sculpture revisited. Retrieved from [https://www.on-curating.org/issue-25-reader/editorial-132.html#.YhP6Wt8o\\_0o](https://www.on-curating.org/issue-25-reader/editorial-132.html#.YhP6Wt8o_0o)
- Riemer, N. (2016). Academics, the humanities and the enclosure of knowledge: The worm in the fruit. *The Australian Universities' Review*, 58(2), 33–41.
- Roberts, J. (2007). *The intangibilities of form: Skill and deskillling in art after the readymade*. London: Verso.
- Roelvink, G. (2016). *Building dignified worlds: Geographies of collective action*. Minneapolis: University of Minnesota Press.
- Rogger, B. (2018). Protest: The aesthetics of resistance. In B. Rogger, J. Voegeli, & R. Widmer (Eds.), *Protest: The Aesthetics of Resistance* (pp. 32–44). Zurich: Lars Müller Publishers.
- Rowe, A. (2018). Socially engaged art at the reimagined 21<sup>st</sup>-century museum: An emerging conceptual framework. *Marilyn Zurmuehlen Working Papers in Art Education* (Vol. 2018, Article 6).
- Rozas, D., Tenorio-Fornés, A., Díaz-Molina, S., & Hassan, S. (2018, July 30). When ostrom meets blockchain: Exploring the potentials of blockchain for commons governance.

- SSRN. Retrieved from <https://ssrn.com/abstract=3272329> or <http://dx.doi.org/10.2139/ssrn.3272329>
- Ryan, A. B. (2013). The transformative capacity of the commons and commoning. *Irish Journal of Sociology*, 21(2), 90–102.
- Sandell, R. (ed.) (2002) ‘Museums and the Combating of Social Inequality: Roles, Responsibilities, Resistance’, in R. Sandell (ed.) *Museums, Society, Inequality*, London and New York: Routledge: 3–23.
- Sandell, R. (2007) *Museum, Prejudice and the Reframing of Difference*, London and New York: Routledge.
- Schavemaker, M. (2018) “Changing the Game: Museum Research and the Politics of Inclusivity” Song Sujong, Kim Seong Eun (eds.), *The Curatorial in Parallax (What Museums Do series)*, Korea: National Museum of Modern and Contemporary Art, 2018, pp.89-106.
- Schneider, R. (2001). Performance remains. *Performance Research*, 6(2), 100.
- Schmitt, C. (1976) *The Concept of the Political*. New Brunswick: Rutgers University Press
- School of Disobedience (n.d). *School of Disobedience*. Retrieved on September 19<sup>th</sup>, 2022 <http://www.schoolofdisobedience.net>
- Schweik, C., & English, R. (2013). Preliminary steps toward a general theory of internet-based collective-action in digital information commons: Findings from a study of open source software projects. *International Journal of the Commons*, 7(2), 234–254.
- Sedgwick, E. (2003). *Touching feeling: Affect, pedagogy, performativity*. Durham, NC: Duke University Press.
- Serafini, P. (2018). *Performance action: The politics of art activism*. \_ Abingdon, Oxon ; New York, NY : Routledge
- Serafini, P., Holtaway, J., & Cossu A. (2017). *artWORK: Art, Labour, and Activism*. London: Rowman & Littlefield.

- Seyedsayamdost, E., & Vanderwal, P. (2020). From good governance to governance for good: Blockchain for social impact. *Journal of International Development*, 32(6), 943–960.
- Shah, N. (2010). Internet and society in Asia: challenges and next steps. *Inter-Asia Cultural Studies*, 11(1), 129–135. <https://doi.org/10.1080/14649370902949515>
- Shaw, A., & Hill, B. M. (2014). Laboratories of oligarchy? How the iron law extends to peer production. *Journal of Communication*, 64(2), 215–238.
- Sheikh, S. (2009). Notes on Institutional Critique. In G. Ray & G. Raunig (Eds.), *Art and contemporary critical practice: Reinventing Institutional Critique* (pp. 29–32). London: MayFl.
- Sheikh, S. (2014). Towards the exhibition as research. *Curating Research*, 40, XXX–XXX.
- Shih, P., Bellotti, V., Han, K., & Carroll, J. M. (2015). Unequal time for unequal value: Implications of differing motivations for participation in timebanking. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)* (pp. 1075–1084). New York: Association for Computer Machinery.
- Sholette, G. (2004). Interventionism and the historical uncanny. In G. Sholette & N Thompson (Eds.), *The Interventionists* (pp. 133–141). Massachusetts: MIT Press
- Sholette, G. (2015). Mocksituation. *Art & Social Justice Working Group, Vera List Center for Art and Politics*. Retrieved on January 27, 2021 from [veralistcenter.org/art-and-social-justice/glossary/28/mock-situation/](http://veralistcenter.org/art-and-social-justice/glossary/28/mock-situation/)
- Sholette, G. (2017). *Delirium and resistance*. Pluto Books: New York.
- Simi, P., & R. Futrell (2009). Negotiating white power activist stigma. *Social Problems*, 56(1), 89–110.
- Simoniti, V. (2018). Assessing socially engaged art. *The Journal of Aesthetics and Art Criticism*, 76(1), 71–82.
- Sitzia, E. (2019). Public Participation and Agency in Art Museums. In B. Eriksson, C. Stage, & B. Valtysson (Eds.), *Cultures of Participation : Arts, Digital Media and Cultural Institutions* (pp. 185–200). Routledge/Taylor & Francis Group.



- Smith, A. (1999 1776). *The wealth of nations: Books 1–3* (A. Skinner, Ed.). London: Penguin Classics. (Original work published 1776)
- Smith, A., & Raven, R. (2012). What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy* 41(6), 1025–1036.
- Soule, S. A., & Roggeband, C. (2019). Diffusion processes within and across movements. In D. Snow, S. Soule, H. Kriesi, & H. McCammon (Eds.), *The Blackwell companion to social movements* (pp. 294–310). Oxford: Wiley Blackwell.
- Stimson, B., & Sholette, G. (2007). *Collectivism after modernism: The art of social imagination after 1945*. Minneapolis: University of Minnesota Press.
- Strathern, M. (1992). *After nature: English kinship in the late twentieth century*. Cambridge: Cambridge University Press.
- Sturgeon, N. (1995). Theorizing movements: Direct action and direct theory. In M. Darnovsky, B. Epstein, & R. Flacks (Eds.), *Cultural politics and social movements* (pp. 35–51). Philadelphia: Temple University Press.
- Swan, M. (2015). *Blockchain: Blueprint for a new economy*. Sebastopol: O'Reilly Media.
- Tapscott, D., & Tapscott, A. (2018). *Blockchain revolution: How the technology behind Bitcoin and other cryptocurrencies is changing the world*. New York: Portfolio/Penguin.
- Tasca, P., & Ulieru, M. (2016). Blockchain as an institutional technology spearheading an equitable exchange economy. *SSRN*. Retrieved from <https://papers.ssrn.com/sol3/papers.cfm?abstractid=2872916>
- Taylor, C. (2004). *Modern social imaginaries*. Durham, NC: Duke University Press.
- Taylor, D. (2003). *The archive and the repertoire: Performing cultural memory in the Americas*. Durham, NC: Duke University Press.
- Taylor, V. and Whittier N. (1992) "Collective Identity in Social Movement Communities." in *Frontiers of Social Movement Theory*, edited by Morris and Mueller. 104-129 New Haven, Conn: Yale University Press

Terranova, T. (2005, June 4). *Immateriality and cultural production*. [Paper presentation].

Curating, immateriality, systems: On curating digital media, Tate Modern, London.

The Invisible Committee (2017). *Now*. South Pasadena, CA: Semiotext(e).

The Sphere (n.d.) *The Sphere*. Retrieved on September 23<sup>rd</sup> 2022. <https://www.thesphere.as/>

Thrift, N. (2006). Re-inventing invention: New tendencies in capitalist commodification.

*Economy and Society*, 35(2), 279–306.

Tisdall, C. (1979). Introduction. In *Joseph Beuys* (p. 7). New York: Solomon R. Guggenheim Museum.

Tokar, B. (2003). Review of Joel Kovel, *The Enemy of Nature*. *Tikkun*, 18(1), 77–78.

Törnberg, A. (2018). Combining transition studies and social movement theory: Towards a new research agenda. *Theory and Society* 47(3), 381–408.

Törnberg, A. (2021). Prefigurative politics and social change: A typology drawing on transition studies. *Distinktion: Journal of Social Theory*, 22(1), 83–107.

Touraine, A. (1985). *An Introduction to the Study of Social Movements*. New York: Cambridge University Press.

Trist, E. (1976). Action research and adaptive planning. In A. Clark (Ed.), *Experimenting with organizational life: The action research approach* pp 223-236). New York: Plenum Press.

Tufekci, Z. (2018) Protest in the age of twitter in *Protest in the Age of Twitter* 210-241  
Zurich : Lars Müller Publishers

UNESCO (1980). *Many voices one world. MacBride report* 659.3 MAN. Retrieved from

<https://unesdoc.unesco.org/ark:/48223/pf0000040066>

Van Den Berg, K. (2019). *The art of direct action: Social sculpture and beyond* (K. Van Den Berg, C. Jordan, & P. Kleinmichel, Eds.). Sternberg Press.

Van De Sande, M. (2013). The prefigurative politics of Tahrir Square: An alternative perspective on the 2011 revolutions. *Res Publica*, 19(3), 223–239.

Van de Sande, M. (2015). Fighting with tools: Prefiguration and radical politics in the twenty-first century. *Rethinking Marxism*, 27(2), 177–194.

Vergo, P 1989, *The new museology*, Reaktion Books, London.

- Viégas, F. B., Wattenberg, M., & McKeon, M. M. (2007). The hidden order of Wikipedia. In *Online communities and social computing: Second international conference, OCSC 2007* (pp. 445–454). Berlin: Springer.
- Vigna, P., & Casey, M. J. (2018). *The truth machine: The blockchain and the future of everything*. London: Harper Collins.
- Vinthagen, S., & Johansson, A. (2013). Everyday resistance: Exploration of a concept and its theories. *Resistance Studies Magazine* 1(September), 1–46.
- Volont, L., & van Andel, W. (2018). The blockchain: Free-riding for the commons; From potential tragedy to real comedy. *Open! Platform for Art, Culture & the Public Domain*. Retrieved from <https://www.onlineopen.org/the-blockchain-free-riding-for-the-commons>
- Voshmgir, S. (2019). *Token economy: How blockchains and smart contracts revolutionize the economy*. Berlin: Berlin BlockchainHub.
- Wark, M. (2004). *A hacker manifesto*. Cambridge, MA: Harvard University Press.
- Waters, B. (2018, October 9). Decentralizing technology, society, and thought. *Hackernoon*. Retrieved from <https://hackernoon.com/decentralizing-technology-society-and-thought-c59318a8aef9>
- Watkins, K. (1991). *Validity in action research*. [Paper presentation]. Annual Meeting of the American Educational Research Association, UK.
- Webach, K. (2018). *The blockchain and the new architecture of trust*. Cambridge, MA: MIT Press.
- Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.
- Wigger, A. (2018). From dissent to resistance: Locating patterns of horizontalist self-management crisis responses in Spain. *Comp Eur Polit*, 16, 32–49.
- Wilson, J., & Swyngedouw, E. (2015). *The post-political and its discontents: Spaces of depoliticisation, spectres of radical politics*. Edinburgh: Edinburgh University Press.

- Wood, L. (2013). Action research for the 21st century: Exploring new educational pathways. *South African Journal of Higher Education*, 28(2), 660–672.
- Wood, L., & Zuber-Skerritt, O. (2013). PALAR as a methodology for community engagement by faculties of education. *South African Journal of Education*, 33(4), 1–15.
- Woolgar, S., & Lezaun, J. (2013). The wrong bin bag: A turn to ontology in science and technology studies? *Social Studies of Science*, 43(3), 321–340.
- Wright, E. O. (2010). *Envisioning real utopias*. London: Verso.
- Yates, L. (2015). Rethinking prefiguration: Alternatives, micropolitics and goals in social movements. *Social Movement Studies*, 14(1), 1–21.
- Yates, L. (2020). Prefigurative politics and social movement strategy: The roles of prefiguration in the reproduction, mobilisation and coordination of movements. *Political Studies*, 1–20.
- Zeilinger, M. (2018). “*Digital Art Between Algomysticism & Fintech Activism*” ed. By Gloerich, I., Lovink, G., & de Vries, P. (MoneyLab reader 2: overcoming the hype. Amsterdam: Institute of Network Cultures
- Zeilinger, M. (2018). Plotting critical research-practice in digital art. In S. Golding (Ed.), *Parsing digital: Conversations in digital art by practitioners and curators* (pp. 22–37). London: Austrian Cultural Forum.
- Zizek, S. (2012). *The year of living dangerously*. London: Verso.
- Zuber-Skerritt, O. (2011). *Action leadership: Towards a participatory paradigm*. Dordrecht: Springer International.
- Zuber-Skerritt, O., & Wood, L. (Eds.). (2019). *Action learning and action research: Genres and approaches*. Bingley, U.K.: Emerald Publishing.

## List of Figures

Figure 1. QR Code to Podcast .....	2
Figure 2 Mind map by the author explaining <i>White Papers on Dissent</i> . ....	3

**Images 3 to 5 are installation shots of exhibition *This Site is Under Revolution*, curated by the author. Photo Credits MMOMA Moscow**

Figure 3. Installation View at MMOMA.....	87
Figure 4 Exhibition View of HyperReadings at MMOMA (2018).....	89
Figure 5 First workshop during the biennale, led by Benjamin Forster explaining the workings of DAT technology .....	91

**Images 6 and 7 were taken by volunteers and participants**

Figure 6. This is a one of the self-initiated workshop. The picture was taken by one of the volunteers. ....	92
Figure 7. View of one volunteer-led workshops. The pictures was taken by one of the participants .....	94

**Images 8 to 14 are installation shots of the exhibition *White Papers on Dissent* at ACC Gwangju in South Korea, curated by the author. The photos were also taken by the author**

Figure 8 Installation view from <i>White Papers on Dissent</i> at ACC Gwangju, November 2019, showing Garam Kim, 4Roses (2014–ongoing). 3-channel video, colour, sound; 19 min. ...	149
Figure 9. Exhibition view from <i>White Papers on Dissent</i> at ACC Gwangju, November 2019, showing Part-time Suite, People, the next People (2017). HD video, colour, sound; 25min. ....	152
Figure 10. Exhibition view of Part-time Suite, <i>People, the next People</i> (2017). Video HD 25 min. ....	153
Figure 11. Exhibition view from <i>White Papers on Dissent</i> at ACC Gwangju, November 2019, showing Unmake Lab, Smart Body (2019). Video loop, digital pictures; 9 min 43 seg .....	155
Figure 12. Exhibition view from <i>White Papers on Dissent</i> at ACC Gwangju, November 2019, showing Kook+, Hacking Territory (2019–ongoing). Video and photo documentation; 33min. ....	157
Figure 13. Exhibition view of Kook+, Hacking Territory (2019–ongoing).....	159
Figure 14. Installation View .....	161

**Images 15 to 28 are installation shots of the discursive project *White Papers on Dissent* at Van Abbemuseum in Eindhoven in The Netherlands, curated by the author. Photo Credits by TomDoms**

Figure 15. Poster and Advertising used during the DDW .....	165
Figure 16. View during one of the Artist Talks with Black Swan Collective .....	166
Figure 17. View of the Panel Discussion "Blockchain and Commons" .....	168
Figure 18. View of the Panel Discussion "Blockchain & Governance" .....	170
Figure 19. View talk with Balasz Bodó and Larissa Blazic .....	171
Figure 20. View Talk with Daphne Dragona and Shintaro Mayazaki .....	173
Figure 21. View during the Dinner Hackathon by Black Swan .....	178

Figure 22. View of the Dinner Hackathon by Black Swan .....	180
Figure 23. View Dinner Hackathon by Black Swan .....	182
Figure 24. ew of LARP Liquid Dependencies by Aiwen Yin.....	183
Figure 25. View of LARP cards of Liquid Dependencies by Aiwen Yin.....	184
Figure 26. View of LARP Liquid Dependencies by Aiwen Yin.....	185
Figure 27. View of LARP Liquid Dependencies by Aiwen Yin.....	186
Figure 28. View of the Workshop String Figures led by Ailie Rutherford.....	190

## PhD Summary

### White Papers on Dissent. Politics & Poetics of Blockchain

EN

*White Papers on Dissent* investigates blockchain technology as a tool for radical imagination. It moves away from economic discourses to understand this technology as a social apparatus, which can organise social life circumventing hegemonic economic principles, like the accumulation of capital and the focus on productivity. This PhD aims to explain how the technology can concoct new social imaginaries, where the creativity to adapt its affordances conveys new *elsewheres* and *otherwise*s: new forms of utopia with a biopolitical production adjusted to the characteristics and desires of the post-digital society.

*White Papers on Dissent* examines blockchains through two complementary angles: the politics within the technology and its aesthetic experimentations. On the one hand, *White Papers on Dissent* delves into how the different uses of the technology develop of new political imaginaries, forms of subversion, and activism. On the other hand, it explores how artists working with blockchains give rise to new forms of aesthetic resistance as they are exercises that recreate, in the present, a desired unwritten future. These artistic projects turn into speculative performances whereby artists and likeminded agents anticipate a potential society to come. As such, these practices come to deepen the project of Institutional Critique, and expand the medium of socially engaged art to compose new forms of digital dissent.

### White Papers on Dissent. Politiek en Poëzie van Blockchain

NL

*White Papers on Dissent* onderzoekt blockchaintechnologie als instrument voor radicale verbeelding. Het neemt afstand van economische discoursen om deze technologie te begrijpen als een sociaal apparaat dat het sociale leven kan organiseren door hegemonische economische principes te omzeilen, zoals de accumulatie van kapitaal en de focus op productiviteit. Dit proefschrift poogt uit te leggen hoe de technologie nieuwe sociale verbeeldingen kan creëren, waarbij de creativiteit om de mogelijkheden ervan aan te passen

nieuwe plekken van verbeelding met zich meebrengt: nieuwe vormen van utopieën met een biopolitieke productie die is aangepast aan de kenmerken en verlangens van de postdigitale samenleving.

White Papers on Dissent onderzoekt blockchains vanuit twee complementaire invalshoeken: de politiek binnen de technologie en de esthetische experimenten. Enerzijds onderzoekt White Papers on Dissent hoe de verschillende toepassingen van de technologie nieuwe politieke verbeeldingen, vormen van subversie en activisme ontwikkelen. Anderzijds wordt onderzocht hoe kunstenaars die met blockchains werken nieuwe vormen van esthetisch verzet creëren, omdat het oefeningen zijn die, in het heden, een gewenste ongeschreven toekomst herscheppen. Deze artistieke projecten worden speculatieve performances waarbij kunstenaars en gelijkgestemden anticiperen op een potentiële toekomstige samenleving. Als zodanig verdiepen deze praktijken het project van institutionele kritiek en breiden ze het medium van sociaal geëngageerde kunst uit om nieuwe vormen van digitaal verzet samen te stellen.