

## Wanderer Above a Sea of FUD: Cultural workforce, crypto anarchism, intellectual rights, and blockchain-based funding models for culture and arts

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## **Introduction and Executive Summary**

This report was prepared throughout 2020, as a follow on of the 2019 report – *There is No Such Thing as Blockchain Art*, which covered the state of the intersection of blockchain and art. We also covered several artists that used blockchain as a medium, and explored different topics, such as memes and malware as conceptual art. The overarching consensus on the report was that there was a need for education and conscious cross-collaboration between communities in order to be able to both build products and grow the intersection ecosystem. At the time of writing, the gap between artists and technologists was too broad to claim there was actually a blockchain art ecosystem. This gap was mainly caused by the lack of collaboration between the two groups, in which one group mostly saw blockchain as a way to attract more funds, whereas the other saw artists as a user base that could easily grasp cryptocurrencies and the marketplaces UX easily.

In 2020 - 2021, the authors selected the text *Pedagogy of The Oppressed* by Paulo Freire and juxtaposed it with different cultures, technologies, phenomena and case studies, to prove the evolution of the state of the intersection between technology and culture in the past years.

Most facts and due diligence on platforms were collected through the period between April and October in 2020. The authors have been researching and staying up to date with most developments in the fields of study. However, due to the accelerated pace of growth of NFT adoption and the general Ethereum ecosystem, the report might not be completely up to date.

In contrast to our 2019 report, this new text has shined a positive light on the state of the aforementioned field of study. Thanks to the rise of the “so-called” creators economy supported by various blockchain-based marketplaces (and adjacent thought leaders, technologists, creators and venture capitalists) and the current cryptocurrency markets optimism that allows more traction into the NFT community, both technologists and artists are converging in one sphere and building an alternative and diverse culture where a symbiotic relationship has formed. Whether this movement will be sustainable, or after the “hype” contributes further to the precarization of the cultural workforce and the market dynamics. It is still too early to tell. Therefore, we ask our readers from the art spectrum to apply certain skepticism out of caution into the promises that technologists make.

We would like to welcome contributions and updates for subsequent blogposts and follow ons. For this purpose, we welcome you to send us your feedback and comments to [art@ethberlin.com](mailto:art@ethberlin.com).

## **Approach**

We initiated this report as a continuation from Department of Decentralization's prior work, *There is no Such Thing as Blockchain Art*<sup>1</sup>. We will revisit the issues that arise, covered in our former report, when the needs of artists and cultural workers intersect with supposed solutions and the modes of engagement created by blockchain. We follow an examination of how these circumstances have evolved, but not necessarily improved, with an interrogation of the parallels between cultural and open-source ecosystems. Throughout the report we will also utilize those findings to propose novel, more effective ways of collaboration between the tech and the art communities.

By establishing key similarities and differences, we seek to expose breaking points that can offer insight into how and why collaboration between cultural, technological and open source communities often fail to value and attribute certain community contributions, even with well-intentioned programs and protocols. These same points of breakdown can, however, present points of breakthrough for identifying why it's so important to work together beyond immediate communities, and how to tailor problem-solving for longevity and antifragility within and among them.

We want to start by revisiting the phrase *democratization of the art world*<sup>2</sup> from our previous report, as we believe that this phrase simplifies the problem and does not fully cover what needs to be done. It is one of many steps towards what needs to take place, but rather than just the democratization for the sake of helping the cultural workforce there needs to be a complete rethink of the whole ecosystem.

How can we not only democratize the system but how can we actually offer and build something that does exactly that and more? Rather than using *democratization of art* as a phrase here, we will instead talk about rethinking current systems to build a more sustainable future with the intent to include a wider group of people and recognize a wider range of work as vital to the whole system.

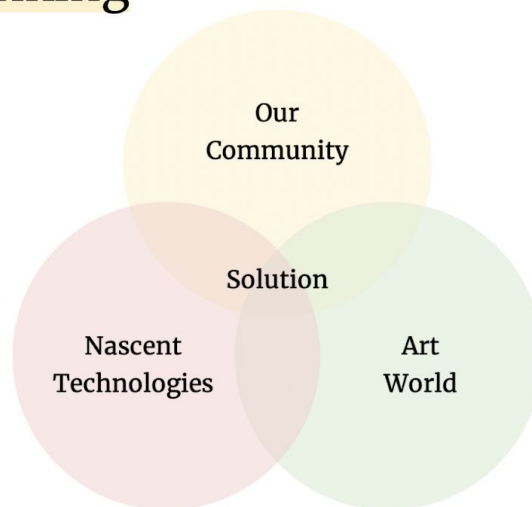
For the 2019 report, the authors based the research on Marshall McLuhan's *Medium as A Message* and Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction*, and intertwined these sources with the so-called "blockchain art". For this report, the authors selected Paulo Freire's *Pedagogy of The Oppressed* which was juxtaposed with different communities (crypto anarchists, blockchain industry, NFT community, cultural workforce) and reported on the conclusions.

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<sup>1</sup> Gustafsson, Fernández, Lakoubay. *There is no Such Thing as Blockchain Art - A report on the current status of the intersection of Blockchain and art*. April 2019. [here](#).

<sup>2</sup> For the definition of *democratization of the art world*, please see page 40.

# Wishful Thinking



*Slide from NonCon presentation, April 2020*

In April 2020, we presented the start of this research project at [Parallele Polis' NonCon](#), specifically looking at Paulo Freire's *Pedagogy of the Oppressed*, named *Research Project Number II: Cognitive Dissonance for Intellectual Property Protection*.

At the time, the authors were taking a look at the current offers in the market and understood there was little work done with regards to the education and onboarding of creatives in the space. From the time the authors published the 2019 report, *There's No Such Thing as Blockchain Art*, to April 2020, almost a year later, the authors have not noticed progress in the problems highlighted in the conclusion of that report.

The NonCon presentation covered various topics including the precarization of the cultural workforce, what to look for and what to address when trying to find solutions for this problem through technology and more. It also covered how blockchain technology proponents are always looking to expand their use-cases, find product-market fit and the cultural workforce was a perfect target audience, yet lack of education and efforts to onboard such workforce generated confusion and frustration in both parties.

## Creative Work and the Cultural Workforce in a Time of Uncertainty

### The Precariousness of the Cultural Workforce

Before COVID-19 was declared a pandemic, there have been ongoing discussions within the art world about a need for a systematic change for the cultural workforce.<sup>3</sup> We recognize that culture includes much more than just art, but for the following sections we choose to concentrate on that particular sector, and the invisible, unaccounted, and unacknowledged work within the art industry:

*"The misconception that creative ideation and production somehow happen without actual labour has allowed unfair wages to proliferate and overwork, stress and burnout to become chronic within the sector."<sup>4</sup>*

In the past years, there has been an active mobilization against (defined and established by the United Voices of the World Culture and Design Workers Union in the UK<sup>5</sup>) unfair wages, illegal unpaid internships, unpaid overtime, rampant exploitation by institutions and bosses and the precariousness of freelance or temporary work in the sector. However, the general consensus amongst the art sector is that acceptable working conditions and a balanced market for aforementioned actors is a goal still set far in the horizon. Free internships and free overtime are still tacitly and extensively accepted within the industry. **Precarious work is now the rule, not the exception**<sup>6</sup>. Huge numbers of the workforce are in a fragile situation without a secure contract - meaning no paid sick leave, no pension scheme, or paid leave.

Furthermore, it is becoming increasingly clear that the creative workforce is still simply defined by the two roles - the artists and the gallerist<sup>7</sup>. Viewing it this way, however,

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<sup>3</sup> For definition of *Cultural workforce*, please see page 39.

<sup>4</sup> 'Designers + Cultural Workers' ([Uvwunion.org.uk](https://www.uvwunion.org.uk), 2019)

[<https://www.uvwunion.org.uk/en/sectors/designers-cultural-workers/>] Acc: 8 December 2020.

<sup>5</sup> United Voices of the World (UVW) is a member-led union, which supports and empowers groups of precarious, vulnerable, low-paid, and predominantly migrant workers in the UK. It was founded in 2014 and has since then gained attention for winning high-profile cases for workers at Sotheby's, Harrod's, and London School of Economics. UVW represent a wide variety of professions, including sex workers, artists, architects, social workers, the legal sector, and also professions in the outsourcing industry, which are primarily cleaning, catering, portering and security. More information about their work and their organization can be found on their website - [uvwunion.org.uk](https://www.uvwunion.org.uk).

<sup>6</sup> Zero-hour contracts are common in the UK, meaning that that big part of the cultural workforce has no access to pension schemes, paid leave, paid sick leave, or any other kind of security a contract might bring. Though it's not called zero-hour contracts in other countries, this is something that we see happening elsewhere as well, leaving big parts of the global cultural workforce in a very precarious situation in terms of existence. In Germany it's common for companies to have so-called faux freelancers, where they work full-time for the company, but are still hired as freelancers. This is indeed illegal, but is still something which is very common and used widely. Even though you as a freelancer can report a company for using this kind of scheme, it still leaves the freelancer in a precarious situation as reporting the employer would mean that the freelancer would lose the job, and as result also the income.

<sup>7</sup> Note for clarity: through the report, we cover the "other roles".

discounts large parts of the cultural workforce who act behind the scenes rather than in public-facing roles. The complexity of it is far greater than this and commonly one person does not simply have *one role* within it, but rather multiple roles. Though certain roles might not be widely known or acknowledged outside the industry itself, they still play a very vital role within the wider ecosystem of the cultural workforce. The art industry, just like any other, has been incrementally needing more specialized and granular roles than those mentioned above.

Viewing it this way, however, discounts large parts of the cultural workforce who act behind the scenes rather than in public-facing roles.

Traditionally, the art world is considered to just be what is “publicly facing” – meaning galleries and artists – though there is another big part which is not commonly recognized or even considered to be a part of the ecosystem or industry - administrators, technicians, educators, to mention just a few. All roles within the cultural workforce need to be considered when talking about the ecosystem, as, arguably, first then you acknowledge the industry as a whole ecosystem.

### **Creative Work and Digital Development**

It is easy to blame the current situation of unrecognized contributions, uncompensated labour and very low wages on certain players in the field, and right now the blame seems to be largely focused on galleries. Though this is, of course, true to a certain extent, as writer Hua Hsu suggested in a recent article, the problem runs much deeper and the digital age that we live in plays part in it. Whilst digital developments have indeed driven mostly positive change, with it came also an expectation of being able to consume culture for little to no money at all<sup>8</sup>. Furthermore, Hsu argues that:

*“[...] it’s easier than ever to share your creativity with the world, and harder than ever to make a living doing so”<sup>9</sup>.*

Though the platforms are there, the amount of creative content that is being produced has, arguably, saturated and overwhelmed the audiences and the consumers of culture. Simultaneous, this has allowed for subcultures to blossom, meaning it is now easier than ever to find niched communities. Though this rise of subcultures is a positive phenomenon, it comes with the reality that even though an artist may reach a wider audience, their dedicated following might be smaller.

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<sup>8</sup> Hua Hsu, *How Can We Pay For Creativity In The Digital Age?* (2020) *The New Yorker*  
<https://www.newyorker.com/magazine/2020/09/14/how-can-we-pay-for-creativity-in-the-digital-age>. Acc: 15 September 2020

<sup>9</sup> Hua Hsu, *How Can We Pay For Creativity In The Digital Age?* (2020) *The New Yorker*  
<https://www.newyorker.com/magazine/2020/09/14/how-can-we-pay-for-creativity-in-the-digital-age>. Acc: 15 September 2020

Though the image of creative work still being sold is based, to a certain extent, on the unrealistic dream of it being simply about creating, the current reality is something different. Thanks to digital development, as mentioned above, it has become easier than ever before to share your work with a much wider audience, but with it comes also an endless offer of creative work. There is no longer one market or place in which the audience or consumer gather, but more likely several places which allow for more niched content and mediums. For instance, though cryptoart markets and the platforms draw big crowds, the audiences who gather on these platforms still have a tendency to be rather niched. Through the past years, we have seen certain platforms which act as coordination tools for micro-communities, loosely classified as “art DAOs”. Even if most are at prototype or early stages, these DAOs can serve to potentially complement the art markets to address the problems mentioned above.

The current reality is very much like what Hsu mentions in his article on the paradox of making a living wage from art in this age of constant digital sharing and connecting. If we, at this point, struggle with paying artists and other creators, roles which are already strongly associated with craftsmanship and the creative market, then how can we make sure that we are paying workers who are not in public-facing roles? Though experience is indeed a vital part of professional development, remuneration for work should never be considered to come second. With this in mind, it becomes even more urgent to consider how we build systems that allow for sustainable development.

### ***Pedagogy of the Oppressed* and Collaborations for Longevity**

Technologies, such as art verification platforms and online crypto marketplaces, which are commonly taken for granted by tech communities can potentially help with the structure in communities outside our own vicinity. Introductions and support will, however, most likely be needed between communities as (in this case the culture workforce) will most likely not be as accustomed to tech solutions supporting their own structural development.

Before even considering the alternatives that can be of use, the question of *why* it is being offered and for *whom* it is being offered - we need to consider if collaborative efforts are being established for our own sake or for the sake of true liberation of another community. Though solutions might arise from any kind of collaboration, long-lasting solutions will only stem from creating solutions *with* the communities or groups that we seek to help.

In *Pedagogy of the Oppressed*, Paulo Freire argues that only by working *with* the oppressed you can truly liberate them, as a lasting solution of liberation *can only* come from the oppressed and not from someone who seeks to liberate them.



*“[M]ust be forged with, not for [...]”*<sup>10</sup> resonates strongly with the belief of Department of Decentralization, that the technical community does not simply have the right to enforce solutions for liberation which we believe that we have identified for communities. Instead, we need to work directly with communities from the start to identify the problems *with* them and not *for* them. Similarly, the consideration of who we work with is equally important since one-sided assumptions may well lead to collaboration which ends up being without a genuine cause or direction, as the maintenance of their power relies on keeping the oppressed in the same position as before.

*“Any attempt to “soften” the power of the oppressor in deference to the weakness of the oppressed almost always manifests itself in the form of false generosity: indeed, the attempt never goes beyond this”*<sup>11</sup>.

In other words, by keeping up the façade of *“false generosity”*<sup>12</sup> the oppressors’ real intention is camouflaged, and as a result might be perceived a saviour, even though their intention to keep their power has not changed. When thinking about the cultural workforce, the main oppressors we need to consider are structures already in place and already benefiting from the existing system. This means that more than ever we need to consider our collaborators before systems are put into place, or otherwise systems might end up helping people already in power. By helping power structures to enforce their position, even more, our systems can, and most likely will, be used for the wrong purpose and thus work against the beliefs in the wider community.

Arguably there are two types of *“false generosity”*<sup>13</sup>, both which we should try to avoid when building systems that can aid workforces and communities:

1. When the collaborator's real intention is camouflaged and they're using the collaboration and community for purposes marketing, clout, growing user base, product testing, data, without actually helping
2. When the collaborator believes they're helping and that incentives are aligned but they are, in fact, only helping themselves because the real problem is not being addressed

The authors suggest that through meaningful dialogues centred around tangible positive outcomes for the cultural workforce, the process of understanding what needs to be changed can be fully put into effect. First then, arguably, a collaboration which offers longevity can happen. Just as Freire proposes, collaborations must be combined effort of actions and reflection. The diagram below offers direction on how the process for

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<sup>10</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017)

<sup>11</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017)

<sup>12</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017)

<sup>13</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017)

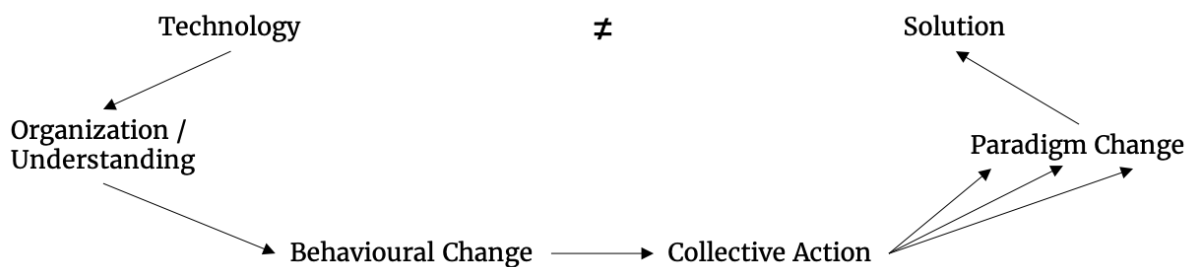
collaborations could potentially happen and how we can secure a potential adaptation of the systems we build.

Action }  
Reflection } word = work = praxis

(14)

On a more general note, praxis can only happen once there is a genuine conversation and joint participation in solution-seeking processes with the communities we seek to support. We will not build sustainable and lasting systems on our own but are dependent on our collaborators and the communities we seek to help. Furthermore, solely relying on the current situation to get an understanding of the problems will narrow the potential outcome. Through the understanding of the wider context, the relationship between the two communities would most likely have a more impactful existence.

It is naive and uninformed to assume that a solution will simply arise from the use of a new advanced technology. A more sustainable shift that offers long term solutions can only really arise from a paradigm shift that stems from an understanding of the art industry. With a wider spread of certain advanced technologies, the behavioural change will occur from mutual understanding between stakeholders building such technologies and seeking to change the current state of the art industry.



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This organisational structure can be supported by new technology, and as a result, opening up for a more clear organisation when it comes to collaborations. Rather than going straight towards a supposed solution, collaborations should be built on the idea of a cross-industry and collective paradigm shift.

Even though we might be able to build sophisticated systems for voting, wealth distribution, and contribution recognition, our systems are only valuable when they can be put into use by the communities they are meant to serve. It is important to remember to build with and for real communities, as we otherwise suffer a risk of simply creating performative gestures,

<sup>14</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017)

<sup>15</sup> Diagram via *Arts of the Working Class*.

and as result, we end up recreating already existing problems, but now with a more technological backing.

### **Organizational Architecture for Collaborations**

The condition outlined in the previous chapter argues that the structure of collaborations needs to be considered for the sake of creating credibility. Furthermore, the hierarchies through which they are built and realised needs further examination and development.

*“A decentralized decision-making structure also encourages widespread participation and fosters innovation from a broader variety of perspectives”.*<sup>16</sup>

By just mentioning the word “decentralization”, one implies that the structure of the group, company or organisation is completely reconsidered, yet the implementation of these systems will not magically happen as industries (in this case, the cultural workforce) will have little to no previous connection to decentralization and flatter hierarchies.

Similarities in collaborations, where one partner has a stronger lead or both partners operate within a traditional and set structure of the organisation, need to be examined and potentially reconsidered for the sake of a more fluid structure. Naturally, this might not be ideal for the industry as a whole, but where this structure is viable, it could offer solutions on how more voices can be heard and how innovation can naturally occur.

*“When organizations fail, our first reaction is typically to fall into “control mode”: One person, or at most a small, coherent group of people, should decide what the current goals of the organization are, and everyone else should then efficiently and effectively execute those goals”.*<sup>17</sup>

As in many other industries, relying on one person or a small core group to lead within the cultural workforce is a given reaction to not just crises, but rather varied types of situations. More so now than ever, small groups of people are deciding the future of the cultural workforce while many who are a part of it have been left out from discussions and decision making. Though this is not entirely connected to collaborations within the industry, it still says a lot about the traditional structure.

*“[...] a decentralized structure can sometimes be arranged, as it has the ability to develop collective intelligence. Participants ideally contribute to better project outcomes in modular*

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<sup>16</sup> Junyeong Lee, Jinyoung Min and Heeseok Lee, 'The Effect Of Organizational Structure On Open Innovation: A Quadratic Equation' (2016) 91 *Procedia Computer Science*

<sup>17</sup> Duncan Watts, 'Decentralized Intelligence: What Toyota Can Teach The 9/11 Commission About Intelligence Gathering' [2004] *Slate*.

[<https://slate.com/news-and-politics/2004/08/the-real-case-against-a-national-director-of-intelligence.html>]  
Acc: 30 April 2020.

*ways and help form the conditions of the activity and thus help build projects with a decentralized structure rather than hierarchically assigned tasks”.*<sup>18</sup>

Whereas hierarchy is ingrained at the very core of the cultural workforce, a step away from it could potentially develop a scenario where more diverse roles could be acknowledged as a vital part of the industry. This also applies to collaborations, where more fluid structures could offer more active reactions from the wider workforce.

With novel ways of organizing, DAOs<sup>19</sup> being one of many examples, there are resources and support to rethink traditional ways of collaboration within the cultural workforce. There have been several attempts with varying levels of success, many still on-going, to use DAOs as a new way of thinking about both organizational terms and distributions of fame and money within the cultural workforce. Arguably, one of the main things that stop adoption of some of the systems is an assumption that the communities for whom the systems are designed for have a fundamental understanding for the advanced technologies that make up the framework. When this assumption goes untested, and systems are not designed for accessibility and ease of use by those who need them, adoption tends to fail. However, as mentioned previously in the report, the inclusion of stakeholders from the user groups that a solution is targeting from an early stage of development might open up for wider adoption.

### ***On the Benefits of Blockchain***

Two key aspects of blockchain technology promise to help us construct a more inclusive and meritocratic ecosystem for art and aesthetic production. First, evolutionary experiments in global coordination will help us rapidly experiment with alternative forms of contribution, curation, governance, and power. Second, blockchain-powered digital provenance lets us more accurately measure and quantify the history of objects, as well as derivative works, curatorial contributions, and collaborative efforts. These two features make blockchain-backed objects fundamentally more powerful digital assets.

Currently, there’s a singular, universal playing field upon which art is produced, consumed, and contributions are measured: the realm of the traditional art world that views contributions through the nearly-global lens of capitalism. As an ecosystem, this status quo does a poor job of rewarding most creators, curators, and other types of participants, visible in the outsized success of a small fraction of creatives.

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<sup>18</sup> Junyeong Lee, Jinyoung Min and Heeseok Lee, 'The Effect Of Organizational Structure On Open Innovation: A Quadratic Equation' (2016) 91 *Procedia Computer Science*

<sup>19</sup> DAOs were mentioned in Department of Decentralizations’ first report *There is no Such Thing as Blockchain Art* by María Paula Fernández, Stina Gustafsson and Fanny Lakoubay. More info and the full report can be found [here](#).

Blockchain technology allows worldwide participants to collaborate under rules of their own construction—operating, by default, in isolation from the canonical art world. New forms of organizational governance, new forms of economic systems, and new forms of art production can all be experimented with, in a fractal and evolutionary sense—one variation can lead to hundreds more, mixing in learnings from past iterations or entirely different experiments performed by other projects.

These distributed organizations can appear and operate as individual entities, much like traditional firms but with much greater leeway to define the purpose of their existence—there are infinitely many ways for a DAO to self-organize, self-govern, and value the contributions of participants. Founders Saloranta & de Vylder<sup>20</sup> describe *The Sphere* as “a digital soul”<sup>21</sup>—a collection of participants coming together to power and empower a singular organizational entity, codifying the structure of said power in smart contracts. In the case of *The Sphere*, the organization attempts to more accurately track the derivations of artwork, a task famously difficult in the current culture.

With such freedom and experimentation, we’ll inevitably stumble upon more egalitarian measures by which to reward the participants in the art ecosystem, whether that’s the original creator, an early curator, a producer of derivative works, or a collector. This question that organizations have to answer, however, is a famously hard one: how *do* we measure the relative contribution of a participant, and reward them appropriately? While rewards need not be monetary—many or most rewards for participating in the current ecosystem of aesthetic production are social, personal, or otherwise non-monetary—the ‘reward’ for contributions should be great enough to encourage contribution in the first place.

This is the ‘measurement problem’—how do we quantify the value created by, for example, an artist’s first collector. How do we reward (if at all) the 30th person to share a new debut single on Twitter? When an artwork that references an original theme from years past is sold, should the original creator receive some reward for creating the context that helped make the derivative work meaningful?

In spite of the contextual challenges, iterative experimentation made possible by blockchain-backed organizations promises a more meritocratic and egalitarian solution. The key aspect of blockchain-backed organizations and assets that makes this measurement problem more approachable is the innate provenance of on-chain actions. Simply, blockchains are really good at keeping track of who did what and when, and that can be

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<sup>20</sup> *The Sphere Intro* (2018), 24 February 2019 [<https://www.youtube.com/watch?v=uptajFPh2rY>] Acc: 26 October, 2020

<sup>21</sup> *The Sphere Intro* (2018), 24 February 2019 [<https://www.youtube.com/watch?v=uptajFPh2rY>] Acc: 26 October, 2020

incredibly useful to a community that wants to accurately reward contributions to shared value.

By tracking ownership of assets on-chain, the digital record itself becomes the central hub connecting the work to related activities, rather than that information being spread thin between disparate databases, or not recorded at all. This is not to say that everything can or *should* be recorded—only that, as part of the creative controls at our disposal when designing decentralized organizations, we can choose or *choose not to* observe those interactions, a fundamentally useful tool.

Once interactions with an art object can be captured, standardized, and made universally available, the measurement problem becomes approachable—we can more easily identify which patrons supported an early creator, invested in the creation of an installation, or built the installation itself. Perhaps as part of an imaginary DAO, we reward early supporters with some percentage of secondary sales—now that the work is tracked on a blockchain, that reward mechanism not only becomes feasible but also *automatic*. Rarible, a platform that has emerged in 2020, is an example of the above<sup>22</sup>.

Historically, artists are left out of the economic success of their own work when early pieces become retrospectively valuable on account of the artist's success. In the early 70s, there was a push to better reward artists with the proceeds from secondary sales: the artist Seth Siegelaub collaborated with the lawyer Bob Projansky to draft a novel and unprecedented contract—*The Artist's Reserved Rights Transfer And Sale Agreement*<sup>23</sup>—which proposes a 15% resale royalty on the increase in value from secondary sales. Simply, if the value of the work goes up, the artist should be rewarded in part as well. On release, the contract was an impactful statement on the art world at the time, but practically unused:

*"Fear of losing sales, the administrative burden of negotiating and enforcing the contract, and ambivalence in the 1970s art world about artists getting so intimately involved with the market side of their careers deterred a critical mass of support to build around the contract among dealers and artists."*<sup>24</sup>

In our blockchain-enabled ecosystem, such a contract is not only a trivial feature to implement, but one that can be automatically enforced on sale—because both the record of ownership and the payment for the transfer of ownership is digital, our distributed

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<sup>22</sup> Rarible, FAQ, <https://www.notion.so/rarible-com-FAQ-9038d28524164a5e83150de052f6d5a5>

<sup>23</sup> Seth Siegelaub, 'The Artist's Reserved Rights Transfer And Sale Agreement (1971) | Primary Information' ([PrimaryInformation.org](https://primaryinformation.org)) [<https://primaryinformation.org/the-artists-reserved-rights-transfer-and-sale-agreement-1971/>] Acc: 26 October 2020.

<sup>24</sup> Kibum Kim, 'Could A Long-Forgotten Contract Settle The Artist Resale Royalties Debate?' ([Hyperallergic](https://hyperallergic.com/172688/could-a-long-forgotten-contract-settle-the-resale-royalties-debate/), 2015) [<https://hyperallergic.com/172688/could-a-long-forgotten-contract-settle-the-resale-royalties-debate/>] Acc: 26 October 2020.

community can automate the distribution of royalties from the secondary sale to the original artist without involving a legal jurisdiction or traditional banking infrastructure. Nearly 50 years later, the time for the Siegelaub/Projansky contract has come.

As we experiment with alternative modes of art production and rewarding contributors, the benefits of blockchain tech—infinately many distributed organizations, novel economic experiments, and modern methods of measuring contribution—make it increasingly an invaluable tool for exploring and defining how we support the ecosystems that power the future of aesthetic production.

## **Property Rules Everything Around Me**

### **Cryptoanarchism and Intellectual Property**

When looking at the first wave of cryptoanarchists, these were secret societies. Their names, faces, identities were protected as they were oppressed by governments, police and companies that labelled them as criminals. The cryptoanarchist manifesto by Timothy C May, affirms the oppression this group felt - as they were organizing in-person gatherings to analyse and take action on how to act against it:

*“Just as the technology of printing altered and reduced the power of medieval guilds and the social power structure, so too will cryptologic methods fundamentally alter the nature of corporations and of government interference in economic transactions. Combined with emerging information markets, crypto anarchy will create a liquid market for any and all material which can be put into words and pictures. And just as a seemingly minor invention like barbed wire made possible the fencing-off of vast ranches and farms, thus altering forever the concepts of land and property rights in the frontier West, so too will the seemingly minor discovery out of an arcane branch of mathematics come to be the wire clippers which dismantle the barbed wire around intellectual property.”<sup>25</sup>*

Intellectual property rights defense has been historically a struggle for both artists and technology activists. Just as the patenting system oftentimes denies access to people for essential medication, the obsolescence of intellectual property and licensing laws by the elites sever the bond between the artists and their work. Cryptoanarchists working together with artists, creatives, and other oppressed groups “cut the barbed wire” of intellectual rights, and have the potential to create a free market where ideas, work, information, and art can be exchanged from person to person - setting up the market conditions in a straightforward manner. This kind of collaboration can be seen, for instance, in the creation of NFT marketplaces: artists and technologists not only critique the old models, but also engage in what Freire describes as praxis, building the methods to break free from oppression.

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<sup>25</sup> Timothy C. May, The Cryptoanarchist Manifesto, on Activism.net. Nov 92.  
<https://www.activism.net/cypherpunk/crypto-anarchy.html>

The conditions outlined in the paragraph above - give the oppressed groups back control over their lives, including their finances, data, and work. When these barriers are torn down, the psychological barriers that the oppressors imposed on these groups are brought down at the same time. If this flow is able to, in addition, create a sustainable market in order for the oppressed to not relapse in the hands of the oppressors, **the collaboration between cryptoanarchists and creatives seems like the most robust alternative against the precarization of intellectual property.**

### ***Friendly Takeovers***

Every once in a while, we hear of a new leak, an exploit or a takeover. Information Security is often weaponized, however, this weaponization, when done in an intelligent way, can spark new paradigms and movements.

The media tends to sensationalize, either for good or bad, when the Cyberspace is weaponized. When these events happen within a Government Agency, the notion of espionage comes to the mainstream sphere. More and more, people around the world are trying to be more cognizant of the way they conduct themselves in the cyber world, of the apps they download, the services they allow into their machines and the machines they choose. The ever-present threat of espionage, data harvesting and subsequent conditioning makes us wary of hackers, vulnerabilities and information leaks.

What happens when these are done for the common good? And most importantly - how do we go back to the foundations of crypto anarchism, where these tools were to be used to protect our intellectual property - or to retrieve that "taken away" from people by the corporations and government?

As a matter of fact, White Hat Hackers help every day by retrieving user funds, protecting important websites, and responsibly disclosing vulnerabilities that can otherwise be very damaging.

*"But the subversive activity of hackers is not exclusively reserved for the criminal-minded, as the media would lead us to believe. In many cases the goals are not about acquisition but about emancipation: to maintain freedom (e.g., from censorship), security (e.g., through cryptography) and to flatten hierarchies like software monopoly (e.g., the free software movement). Now, it might happen that in order to pursue their concerns, hackers have to cross borders and stretch certain limits, but what often simply is declared as 'criminal' is in fact motivated politically."*<sup>26</sup>

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<sup>26</sup> Cornelia Sollfrank, Not Every Hacker is a Woman, 'Technics of Cyberfeminism', Claudia Reiche/ Andrea Sick, 2002 [https://www.obn.org/reading\\_room/writings/html/notevery.html](https://www.obn.org/reading_room/writings/html/notevery.html)



### ***The Future of Takeovers***

We are living in a very particular moment in history. In the midst of a pandemic, alongside deep societal and economical seismic shifts that seem to not have stopped since January 2020. The current crisis has created the ideal grounds for technologists and artists to converge, and think of alternative systems, economies and ways to organize their work. These ideas have shifted into a parabola of growth for both communities, through combination, adaptation and collaboration.

In times like these, communities talk about “taking back” control. The leaders that once helped build countries and cities are no longer serving their best interests. Blockchain gives us a possibility of allowing fairer systems to emerge - they can be the facilitators of takeovers, but not in the strict sense of the world.

Takeovers, in 2020, should be about rethinking systems and improving or restarting. Not about ownership. They should be about collective action, collective rebuilding and not about capture. We should be able to talk about takeovers, execute in coordinated manners looking after fixing problems, however deep or superficial these may be - and maintain coordination and action as systems are rebuilt and after stability is reached in targeting a problem.

*“Revolutionary praxis must stand opposed to the praxis of the dominant elites, for they are by nature antithetical. Revolutionary praxis cannot tolerate an absurd dichotomy in which the praxis of the people is merely that of following the leaders decisions—a dichotomy reflecting the prescriptive methods of the dominant elites. Revolutionary praxis is a unity, and the leaders cannot treat the oppressed as their possession.”<sup>27</sup>*

*“It is absolutely essential that the oppressed participate in the revolutionary process with an increasingly critical awareness of their role as Subjects of the transformation. If they are drawn into the process as ambiguous beings, partly themselves and partly the oppressors housed within them—and if they come to power still embodying that ambiguity imposed on them by the situation of oppression—it is my contention that they will merely imagine they have reached power.”<sup>28</sup>*

As stated in other sections, we have chosen the book Pedagogy Of The Oppressed to highlight the importance of coupling thought with action, and together with coordination techniques (and in the case of utilizing the technologies mentioned above, coordination mechanisms). Revolutionary praxis, as explained in the Freire book, are the future of takeovers - those executed by cyberactivists, artists, and other oppressed groups striving for societal transformation.

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<sup>27</sup> Paulo Freire, Pedagogy Of The Oppressed (10th edn, Penguin Classics 2017)

<sup>28</sup> Paulo Freire, Pedagogy Of The Oppressed (10th edn, Penguin Classics 2017)

### **Blockchain: The Paradox in User Growth**

Blockchains were built on various premises, but the one of immutable, untamperable data is one of the main ones. The idea of a censorship-resistant and transparent world driven by consensus mechanisms is a promising one that as a society that's immersed in crisis, fraud, inequality and inefficiency is an achievable future to strive for.

Societal change, redistribution of wealth, fairness, transparency in supply chains, immutable documentation including identity - are all tied to that future that blockchains can help facilitate. Distributed technologies emerged for the first time in the 1960s, while Peer-to-Peer was born by the late 1970s. SETI@Home<sup>29</sup>, the first worldwide community scientific project, facilitated by these, started in 1999 at Berkeley, California, and continued for almost 11 years - closing in March 2020 with a total of 165,178 hosts (participants)<sup>30</sup>. SETI@Home had a total of 1,808,938 users.

Blockchain developers have been building thousands of applications, both consumer-facing and as infrastructure, since 2008 - Bitcoin being the first application of this technology<sup>31</sup>.

Even though nowadays we hear about cryptocurrencies, blockchain and Bitcoin in the television and media, and we talk about them with our friends and colleagues, - the consumer-facing applications (by this we refer to those applications built atop or using blockchain technologies within their technological stack) still struggle with user acquisition. The contest for the largest user base is that of underwhelming numbers - and next to applications such as Instagram, Whatsapp, and Facebook, it's insignificant.

Blockchain application developers are under great pressure to deliver platforms that can go mainstream. However due to the user experience challenges that these face, it has not been an easy task. When these challenges are overcome, the developers (and their teams) need to face large conglomerates that they are competing against. Applications that are widespread have their own culture, and migrating from one platform to another requires significant efforts on multiple disciplines, from development to marketing, branding, advertising and more. Notably, we have discussed a similar audience behavior, but within the art world, in the section "Creative Work and Digital Development (or "We can't pay you, but it will look great on your CV")" on page 6 of this report.

The problem that presents having applications readily available but not used by enough people to keep them running and being maintained is ever-present in the space. More and more, we see the term "*product market fit*" finding its way at the core of development teams that before, did not worry about this. Looking at well-defined user-groups, with a

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<sup>29</sup> SETI@Home Website <https://setiathome.berkeley.edu>

<sup>30</sup> Boinc Stats for SETI@Home website <https://www.boincstats.com/stats/0/project/detail/overview>

<sup>31</sup> Nakamoto, Satoshi, Bitcoin: A Peer-to-Peer Electronic Cash System, 2008 <https://bitcoin.org/bitcoin.pdf>

clear profile and obvious problems, that can be solved thanks to blockchain technology has been the most effective way to onboard new people. And the art world is one of those user-groups that could directly benefit from these technologies.

This is clear for many participants of the ecosystem, however, they see this user group as a sample - and the art world then sees blockchain as only a new way to monetize. At first, artists are captured by the possibilities these technologies bring and want to take part - but when the time comes to join platforms that are marketed as built for them, or at least, art being one of the use-cases, the problems emerge: from lack of proper documentation to onboard artists, to misleading rhetoric the platforms that traditional art markets are “the enemy” and little to no information about the newfound collectors audience that artists will have to face to sell their works.

In general, there is not enough willingness from the technical fellows and their marketing/user experience teams to build platforms based on research on this particular user group, most platforms for artists are built based on assumptions. While a digital art marketplace might work for some creators, especially if they have previous knowledge of cryptocurrencies and technology, most artists will simply quit at the sight of an incomprehensive “About” page.

To make this point more convincing to technologies, putting it in a more pragmatic way: Leveraging the art world user base would mean finding a sustainable source of user growth for applications. However, builders, besides some exceptions, are not taking artists into account in the construction process - it is not only after the applications are built that they are invited in.

### ***Cross-collaboration and Pollination to Protect Oppressed Creatives Against the Elites Monopolizing Markets Through the Protection of Intellectual Property***

Cryptoanarchists are cryptographers and hackers, computer scientists and mathematicians. However, it is only when they added action to the theory, that the movement that takes this name started. Paulo Freire’s theory is proven correct by this particular movement that later spawned Bitcoin and Blockchain.

During the summer of 2020, the emergence of new DeFi (decentralized finance) projects, most specifically “farming” took over the attention and the market. Most of these introduced to Decentralized Finance the concept of “fair launch”:

*“DeFi projects have invented their own version of their fair launch, as market participants have to perform proofs of work (PoW) to earn tokens, and nothing is given for free. The type of PoW can look different for each project: In some cases, rewards are given for providing liquidity (liquidity mining) to lending protocols like Compound, or exchanges such as Curve or Uniswap. In others, the point isn’t even to create value for others (and that’s where it gets*

*very similar to traditional PoW) but merely to prove that a certain resource has been burned.*<sup>32</sup>

While the model and its adaptations present flaws, contradictions and have been used already in controversial schemes, fair launches also introduce new possibilities for many. Anonymity has once again taken the spotlight thanks to fair launches. In the old cryptocurrency project funding models, be them VC or crowdfunding models, teams and advisors, with names and last names, university credentials and other qualifications were a sine qua non condition to guarantee the project's funding success. Even if anonymous or pseudonymous actors have been under fire due to the foul actions of a few of them, it is essential to understand the industry needs to continue to validate the choice to remain private.

Tied to the DeFi boom, we are nowadays seeing NFT art marketplaces flourishing, perhaps more than ever. Some of the most notorious ones are Zora, Foundation (which we will analyse in detail through this report, Rarible and Superrare (which we have mentioned in the 2019 report), to name a few. There are at least a dozen NFT marketplaces that allow creators, from well known artists like Signe Pierce, Arvida Bystrom or Archillect's Murat Pak, to pseudonymous newcomers, to market their products. The new platforms and the NFT boom now allow people to make a living out of their art. What's more interesting is that there is a high number of creators that are working within the industry in different fields than the creative one. Cross-pollination between crypto anarchism and creatives is prescient and growing. And more creatives are flocking onto the space as cryptocurrencies gain in adoption. Music artist and Grammy Award winner RAC is now leading the charge, inspiring newcomers to try out the new and fairer funding models, while the industry becomes more welcoming and UX improvements within platforms push the gates open.

However, words of warning from Freire's book ought to be mentioned:

*"More and more, the oppressors are using science and technology as unquestionably powerful instruments for their purpose: the maintenance of the oppressive order through manipulation and repression."*<sup>33</sup>

In the last days of October 2020, the news PayPal would be commencing to support and adopt cryptocurrencies<sup>34</sup> brought the blockchain space to the realization that the mainstream adoption of digital currency was imminent.

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<sup>32</sup> Hasu, "How Defi Reinvented The Fair Launch Or Did It", Deribit, August 2020 <https://insights.deribit.com/market-research/how-defi-reinvented-the-fair-launch-or-did-it/>

<sup>33</sup> Paulo Freire, Pedagogy Of The Oppressed (10th edn, Penguin Classics 2017).

<sup>34</sup> PayPal to allow cryptocurrency buying, selling and shopping on its network, Reuters, October 2020 <https://www.reuters.com/article/paypal-cryptocurrency-idINL1N2HB14U>

The industry is expanding and growing at a staggering rate - even centralized exchanges, that a few months ago would take months of discussions, due diligence, and sometimes hefty fees, to list new tokens, are now listing “fair launch” anonymous coins a day after they emerge. Due to political and economic unrest, large companies are buying bitcoin instead of keeping their reserves in fiat. Countries and even the European Union are announcing they will go digital with their currencies.

We are at a pivotal moment in the history of cryptocurrencies, as adoption grows, we need to understand the once small industry can be prone to capture in one way or another by institutions, corporations and governments. Working on licensing, privacy and data ownership is now more important than ever.

### ***Notes and Considerations on cryptotwitter and the Creator Economy***

Through the preparation of this report, the topic of creator economy began to gain traction. This concept has been gaining more traction through 2019 and 2020, to describe the overarching phenomenon behind influencers and youtubers monetizing the creation of their own content, often resulting in lucrative businesses.

However, the resurgence of the creator economy concept brings with it a reshuffling of the meaning of this concept, now directed towards the cultural workforce. The first mentions of the creator economy can be traced back to Paul Saffo, professor at Stanford University.<sup>35</sup>:

*“I like the term “creator,” as this new kind of actor is doing something more fundamental than the mere sum of their simultaneous production and consumption. Creators are ordinary people whose everyday actions create value.”*

Saffo first wrote about the new paradigm in 2009, in McKinsey’s publication *What Matters:*  
36

*“But the most successful companies will be the ones that harness creator instincts, and the biggest winners will be the companies who harness the smallest creative acts. More people watch YouTube than post videos because creating a video is work. More people read blogs than write them because long-form writing is a hassle.”<sup>37</sup>*

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<sup>35</sup> Paul Saffo, Get Ready for a New Economic Era, What Matters, McKinsey, 2009  
<http://www.saffo.com/wp-content/uploads/2016/06/McKinsey-Creator.pdf>

<sup>36</sup> Paul Saffo, Get Ready for a New Economic Era, What Matters, McKinsey, 2009  
<http://www.saffo.com/wp-content/uploads/2016/06/McKinsey-Creator.pdf>

<sup>37</sup> Paul Saffo, Get Ready for a New Economic Era, What Matters, McKinsey, 2009  
<http://www.saffo.com/wp-content/uploads/2016/06/McKinsey-Creator.pdf>

In 2015, Paul Saffo spoke at a seminar at Stewart Brand's The Long Now:<sup>38</sup>

*"We've done the shift from mass media to personal media. Immersion and participation is the new normal [...] In the consumer economy we watched and we bought. In this creator economy we participate and we create. [...] the pattern of the creator economy is a rebalancing."*

In 2020, we are seeing the term adopted by a community of artists, creatives, cryptocurrency aficionados and venture capitalists to push forward several causes, including that behind the growing popularity of NFTs.

*"The big picture is that emerging "tokenization" models, including non-fungible tokens, or NFTs, are creating new ways for collectors and investors to buy, sell, and trade digital art. More broadly, these innovations open the door to the tokenization of any products or collectibles that can be captured and owned digitally, and many new business models for creators."*

*Marketplaces powered by NFTs open up new revenue streams for creators, because anytime digital work is resold or their tokens traded on these platforms, the creator automatically gets a percentage of those secondary sales. It's all transparent and governed by code on the blockchain, and it's a big shift in creator economies."<sup>39</sup>*

*"We have a long way to go. Creators are just now buying BTC. Wait until they start minting their content through our protocols. Wait until they reclaim ownership like we did of the financial system. Gonna be happy days."<sup>40</sup>*

As mentioned in the introduction of this report, the authors would like to express their caution on the matter of the surge of the creator economy. The main argument being that the creative workforce and the precariousness of their working conditions can be further worsened. Just as Uber and other *gig economy* platforms were presented as a new form of "being your own boss" there is no guarantee the creator economy will continue further to introduce more precarious and unsustainably competitive working conditions. 2020 in the blockchain industry has been a year of staggering growth and revenue surge, but the years preceding this past one have not had the same luck. The creative workforce does not have "runway funds" in their treasuries, so come a new "crypto winter" where NFT aficionados

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<sup>38</sup> Paul Saffo and Stewart Brand, The Creator Economy, The Long Now. 2015  
<https://soundcloud.com/longnow/creator-economy>

<sup>39</sup> Pak, Signe Pierce and Zoran Basich, Crypto for Creators: From Art Galleries to 'Tokenized' Collectibles, a16z Podcast <https://a16z.com/2020/11/22/crypto-for-creators-tokenized-collectibles-nfts/>

<sup>40</sup> Dee Goens, Creative Composibility, ourZora Blog, December 2020  
<https://blog.ourzora.com/home/creative-composability>

can't purchase digital goods, the consequences for Creatives could end up being extremely unfavorable and the illusion of progress shattered.<sup>41</sup>

Creating a sustainable creators economy can only happen when all stakeholders become interdependent. So far, the current ideas and musings of the proponents are directed towards this interdependence, but at the present moment, the chances of it surviving a black swan event seem very slim.

### **Case Study: Foundation**

In our first report, we presented several platforms to trade, buy and sell “crypto art”. The term “crypto art” in these platforms, refers to digital art that is displayed on the platform of choice and is formed by two components: the digital art piece, and an NFT (non-fungible token) proving its authenticity. NFTs (ERC-721) are unique, making the tokens scarce, in contrast to regular ERC-20 tokens.

During the first half of 2020 the authors came across Foundation, a new art marketplace. The novelty in Foundation is that it encourages artists to become their own markets atop of Ethereum. Using the Uniswap model of Automated Market Makers (AMM), Foundation takes this approach, well-praised by the blockchain community, and pours it into the construction of their own market.<sup>42</sup> Since then, it has integrated NFTs, allowing creators to both spin up markets for redeemable goods and sell digital art.

*“When we set out to build the markets powering Foundation, we analyzed what’s been done to date on AMMs and took that as inspiration. We then made some key modifications that would allow us to serve the needs of creators first and foremost.”<sup>43</sup>*

*“In order to repurpose AMMs for redeemable tokens, which is how we talk about markets where creators are selling actual work, we needed a fee structure and overall market experience that rewarded creators.”<sup>44</sup>*

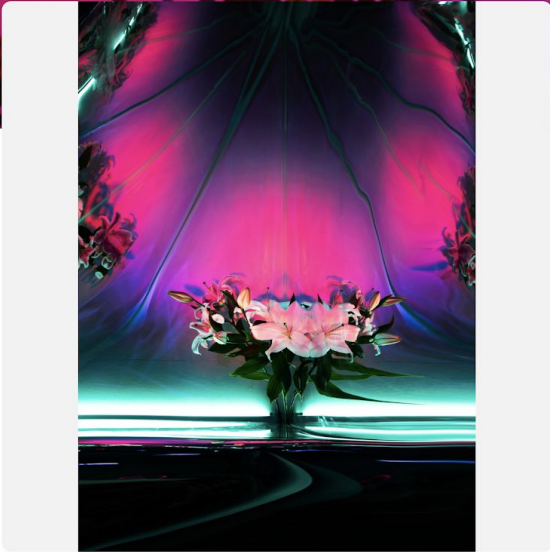
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<sup>41</sup> Li Jin, The Creator Economy Needs a Middle Class, Harvard Business Review, December 2020 (<https://hbr-org.cdn.ampproject.org/c/s/hbr.org/amp/2020/12/the-creator-economy-needs-a-middle-class>)

<sup>42</sup> Foundation, We are empowering creators to build their own markets on Ethereum, June 2020 <https://withfoundation.com/blog/we-are-empowering-creators-to-build-their-own-markets-on-ethereum>

<sup>43</sup> Foundation, We are empowering creators to build their own markets on Ethereum, June 2020 <https://withfoundation.com/blog/we-are-empowering-creators-to-build-their-own-markets-on-ethereum>

<sup>44</sup> Foundation, We are empowering creators to build their own markets on Ethereum, June 2020 <https://withfoundation.com/blog/we-are-empowering-creators-to-build-their-own-markets-on-ethereum>



\$ACRED

# SACRED GEOMETRIXXX

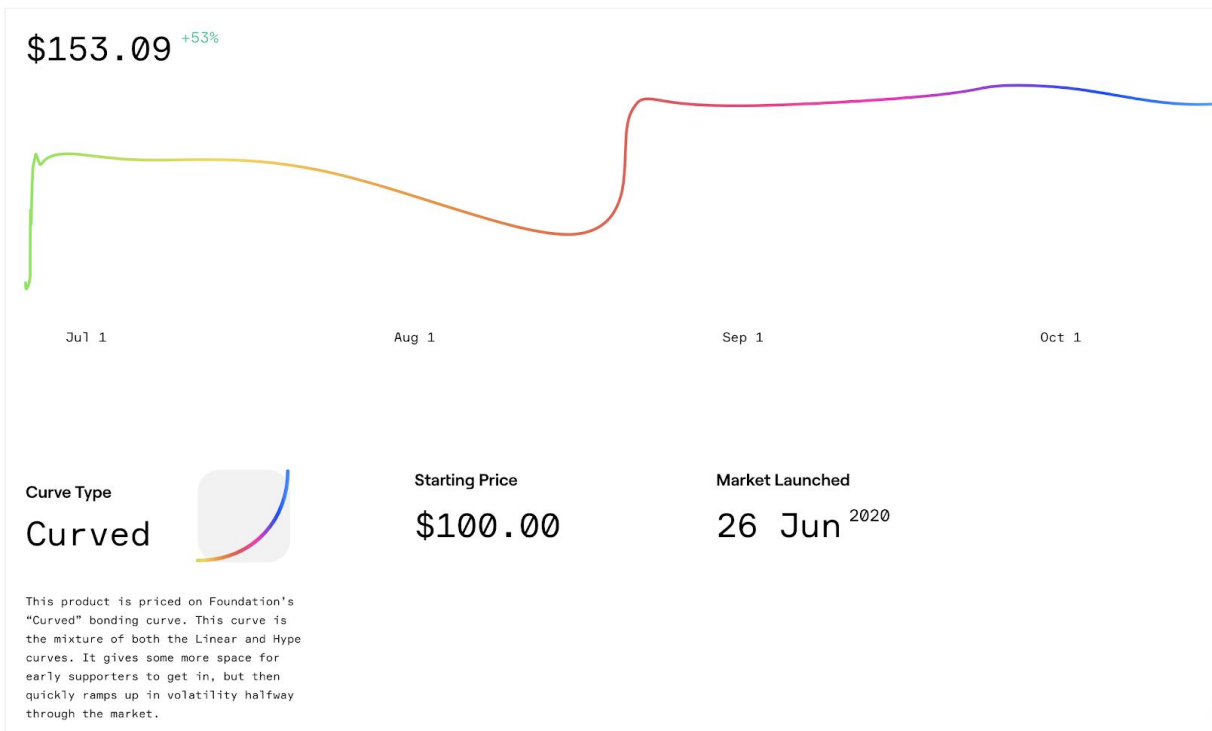
@signe

Trading at  
**\$153.09**

Buy Sell

16" x 20" Digital C-Print

Dropped  
**26 Jun 2020**



*Images: screenshots taken on October 22nd, 2020 from the market for Signe Pierce's artwork Sacred Geometrixxx. In the Foundation platform, each artwork has its own market, and the curve type is set by the artist with the platform team's guidance*

In contrast to Uniswap or any other protocol where liquidity is provided by the users, Foundation's markets allow creators to tokenize their work and set up the price parameters and the depth of their market. This means that the creator can determine the process of price discovery based on their parameters, supply, and demand.



Then the collectors or community around the creator have the ability to buy or sell within the platform—the more demand (called “hype” by the platform) they create, the more the market for each artwork grows.

With this approach, Foundation creates several key experiences:

- The full control over the market dictating the sale of the creations generates more engagement from the artist in the sale process
- The artist is in constant contact with their community as it is crucial for them to keep them engaged to grow the market
- Subsequently, the collectors/ community, are incentivized to keep growing the artist’s market and the act of “collecting” becomes less stagnant and more dynamic
- There are no facilitators getting fees - all the parties involved are stated in a Smart Contract. All fees are distributed between the artists, sellers (if on secondary sales process, otherwise, this is the role of the artists), and the Foundation. Everything is on-chain, so the percentage of fees each party gets is public information
- The problem with secondary sales (where the artist often does not get rewarded) is eradicated by the market paying fees to artists on every sale

Let it be stated that in the traditional art world, the demand is accounted for differently as in the Foundation market. Foundation seeks to democratize artwork demand with a novel approach interesting for new collectors and promising for artists from all backgrounds. In this regard, we appreciate the Foundation markets approach.

To further explain, some artworks are only made available to certain collectors. And the purchasing of an artwork by a prominent collector means a surge in the demand of the artist - and the price of the artwork. Therefore the traditional art market has its own complex mechanisms, driven by status and implicit norms.

Upon enquiring Foundation for this report, Lindsay Howard, Head of Community, mentions:

*“On Foundation, creators can drop limited-edition art and goods on a bonding curve using dynamic pricing, or they can release unique digital artworks as NFTs. With both of these approaches, creators are empowered to design their own markets in ways that suit their needs, and make royalties on it over time. That’s huge.*

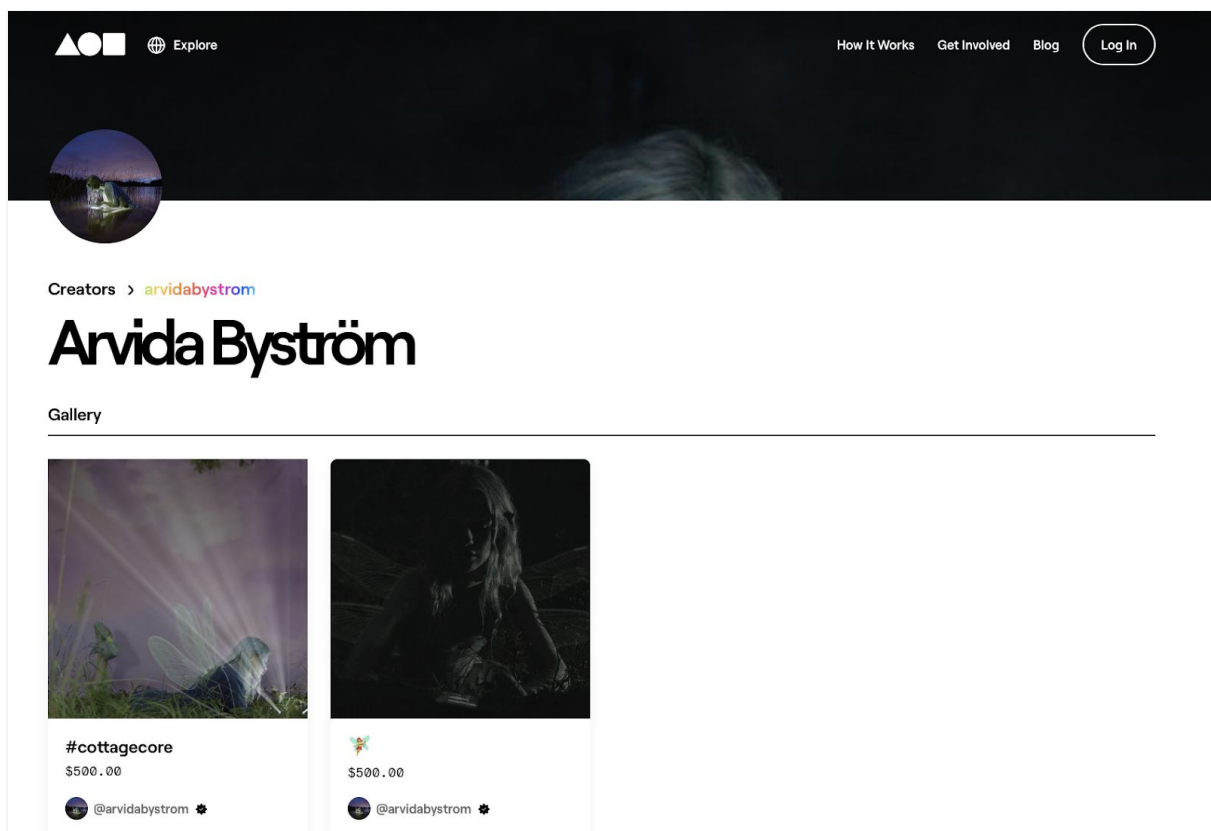
*Additionally, there’s more going on here than the transactional aspect of selling art. We’re also focusing on collaboratively building a transformative creative economy that shifts power into the hands of creators.”<sup>45</sup>*

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<sup>45</sup> María Paula Fernández, Department of Decentralization blogpost, December 2020  
<https://medium.com/ethberlin/a-conversation-with-curator-lindsay-howard-foundations-head-of-community-451456086df6>

While adding novel mechanisms to the art market in order to solve problems is a solid approach and one that should be pursued, the project is still in its infancy, having launched in May 2020. However, Foundation has set up at a steady growth pace, first generating markets for limited edition artworks from a reduced number of artists, and later on has integrated NFT art within the platform.

In October 2020, Foundation launched its first curated collection of artworks from digital artists, many of whom are well-known in the traditional art world. For several of them, this was the first time they'd minted their own NFTs. Foundation allowed these artists to set their starting price, receive bids, accept their desired amount, and transfer ownership, all within the platform. As of this launch, no other platform in the space supported both NFT and AMM activity.



Screenshots of Arvida Byström's page on the Foundation website. Byström was onboarded by the authors of the report and the platform for a special project in November 2019<sup>46</sup>

The authors of this report have further engaged with Foundation with the purpose of hosting an online exhibition. The exhibition, under the concept *The Body Always Needed to*

<sup>46</sup> Foundation, Arvida Bystrom page, November 2019 <https://foundation.app/arvidabystrom>

*be Somewhere*<sup>47</sup> wanted to reflect the effects of the year 2020 in the daily life, that due to the ongoing pandemic passed onto the digital realm. For the purpose of this collaboration, the authors and Foundation onboarded artist Arvida Byström to the Foundation platform, where she is currently selling two digital artworks turned NFTs. Since this project, to the date of the publication of the report, is ongoing, we will report about it in the future.

### **Case Study: Kusama Network**

Kusama Network is a new protocol that was developed in 2019<sup>48,49</sup>. It is a multi-chain framework, meaning that it is meant to host several blockchains and connect them together. It was born after the need to have an experimental model of the Polkadot Network on an incentivized environment, another protocol built by the same developers. The more experimental Kusama Network allows for people to build and test blockchain and on-chain governance features.

In order to test the on-chain governance in Kusama Network, and allocate a portion of the Kusama fund towards more experiments coupling technology and various disciplines, the council behind Kusama has reached out to artists involved in blockchain technology.

It is important to stress that the developers and community managers in charge of pushing Kusama Network forward, have no artistic background or prior knowledge of how this world functions. However, they understand the lack of transparency in it and are eager to test their project and fund creators.

It is worth noting that the council that decides on the funding of the proposals submitted to the protocol is a pseudonymous/anonymous one, so it is not possible to determine whether the proposals that are funded are funded because of their artistic value. However, the proposal in particular, Motion #225 (details below), presents an interesting way for Kusama Network to be displayed in an artistic setting.

Kusama Network seeks to experiment with different use-cases and funding via on-chain governance. It is an open network, meaning anyone can make a proposal, regardless of the use-case they present.


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<sup>47</sup> Stina Gustafsson, Department of Decentralization Medium, “The body always needed to be somewhere — The concept for the collab with Arvida Byström and Foundation for TwoPointFive virtual conference”, November 2020

<https://medium.com/ethberlin/the-body-always-needed-to-be-somewhere-1f613163e2bcc>



<sup>48</sup> Kusama Network, Website <https://kusama.network>











<sup>49</sup> Kusama Guide <https://guide.kusama.network/docs/en/kusama-index>

Council Motion #225 

Created at block	4458863
Updated at block	4482396
Motion Hash	0x3c4101ed910221e244063fb9b1165fa765835592b07bd614235ae33ac16e559e
Proposed By	 JAM  H9eSvWe34vQDJAWckeTHW5qSChRat8bgKHG39GC1fjvEm7y
Member Threshold	12
Aye votes	12
Nay votes	0
Status	Approved

 Proposal  Votes

Account	Approve	Block
 RTTI-5220 GLVeryFRbg5hEKvQZcAnLxVZEXhiYaBjzSDwrXBxrfPF7wj		4482393
 HSNBs8VHxcZiqz9NFSQq2YaznTa8BzSvuEwVe4uTihcGiQN HSNBs8VHxcZiqz9NFSQq2YaznTa8BzSvuEwVe4uTihcGiQN		4479246
 Jack FnoYEw7vhMb5uLdaqjYz84viAAAt4nM759sD2oV9owZJTsc4		4472974
 DWUAQt9zcpnQt5dT48NwWbjuxQ78vKRK9PRKHdKGDn9Tj1j DWUAQt9zcpnQt5dT48NwWbjuxQ78vKRK9PRKHdKGDn9Tj1j		4469487
 Prince Kusama Hjuil5eGVtxjAqQrPLVN3atxBDXPc4hNpXF6cPhbwzvtis		4469421

Screenshot of the Kusama Council Motion for the funding of Voxel Bridge & Artproject2020<sup>50</sup>

We have, therefore, focused on the on-chain funding mechanism which ensures transparency. Such a mechanism could be used in grant/residency programs, for instance.

The Kusama Treasury votes via the on-chain Kusama governance module, which features a council formed by token holders that are voted in by the (also token holding, since you need KSM token to vote) community. Kusama has sourced artists and projects via open calls and word of mouth predominantly from the community managers, to make proposals to the council. The voted proposals would get funded by the treasury, which is an endowment of tokens allocated to the project upon its creation and subsequent token distribution. Through this process, Voxel Bridge and Art Project 2020, initiatives to take place in Vancouver, Canada, have been able to obtain funding for their virtual art and technology exposition and the VR art installation being set up in 2021<sup>51</sup>.

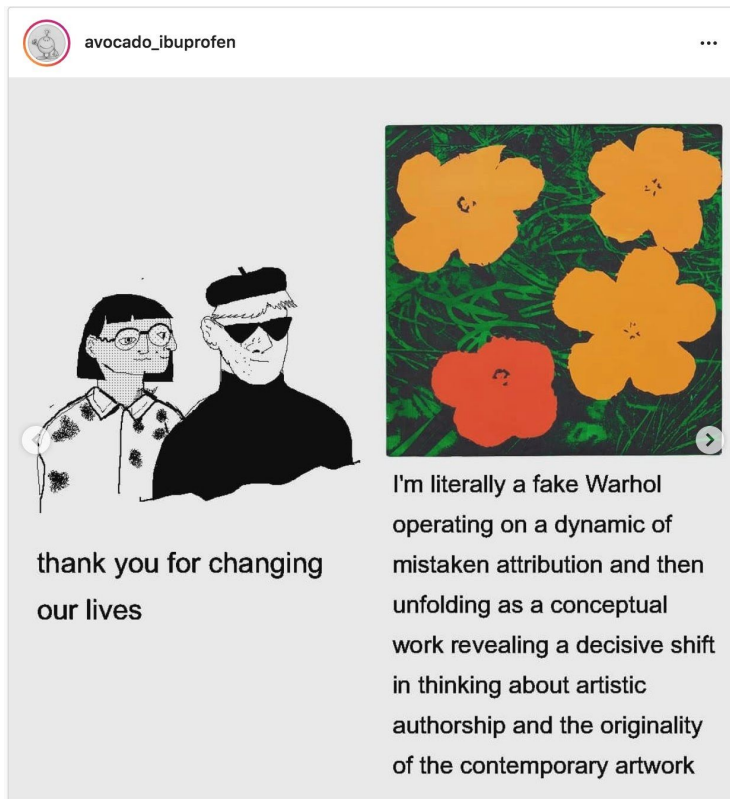
While in the art world councils exist and also deploy funding, it is worth noting that the Kusama council is formed and voted by token holders, whose interests follow those of the improvement and growth of the Kusama platform, and not the particular proposals. Within Kusama, the concept of the curator is also mentioned, for the purpose of managing projects and making sure they are completed. However, curators do not participate in the voting

<sup>50</sup>Polkascan website, Kusama Network, Motion 225 <https://polkascan.io/kusama/council/motion/225#votes>

<sup>51</sup>Polkascan website, Voxel Bridge proposal <https://kusama.polkasassembly.io/post/315#30a07406-edc6-4d56-9275-4326e3178c82>

process. The discussions for each proposal funding can be accessed and commented by the entire community, opening the decision making process to a wider audience.

### Attribution Networks



*A mimetic musing on attribution of creative output and their impact on the ecosystem of consumers, observers and collaborators.*

### **Reframing Labor and Property through the Lens of Attribution Networks**

Intellectual property can be thought of as a form of access control that confers, polices and parameterizes who can change or benefit from the output of intellectual work:

*"Intellectual property is generally characterized as non-physical property that is the product of original thought. Typically, rights do not surround the abstract non-physical entity; rather, intellectual property rights surround the control of physical manifestations or expressions of ideas. Intellectual property law protects a content-creator's interest in her ideas by assigning and enforcing legal rights to produce and control physical instantiations of those ideas."<sup>53</sup>*

While intellectual property does cover these things, it is important to consider what it means to fence in and keep out, bar from and welcome to decision-making: what Freire, quoting Erich Fromm, characterizes as *"not merely freedom from hunger but freedom to*

<sup>52</sup> Meme by, or curated by [avocaodo\\_ibuprofen](#) on Instagram (provenance unspecified).

<sup>53</sup> Stanford Encyclopedia of Philosophy, <https://plato.stanford.edu/entries/intellectual-property/>

*create and construct, to wonder and to venture.*<sup>54</sup> Explicit designation of intellectual property can be leveraged as the kind of direct action called for by Freire to ensure creators' agency and autonomy:

*"[T]he oppressed must intervene as subjects, not as objects and must intervene directly - whether one intends to carry out the transformation for the oppressed or with them; only then is the transformation valid."*<sup>55</sup>

It's unsurprising that systems designed by blockchain engineers don't accurately represent the substrate of labor that is difficult to measure and articulate even to those performing it. These systems and their engineers often fuse the concept of "cutting out the middleman" with reductively minimising labor and flows of value in the ecosystem – because that is how their own systems are designed. Without research the technologist cannot recognize the unique and differentiable labor performed by the curator vs. producer of an art show, as, in their own realms, they don't recognise the value behind non-technical functions like marketing vs PR as for frontend and backend development.

This is where a framing of labor as redefined by property becomes a valuable analytic lens. The structure that emerges from laws defining the interactions and boundaries between information, products, people and behaviors codify this transformation so that a sheltering matrix of permissions and parameters forms around creators and their work. This is best expressed as protection *from* (from that is exploited without attribution or with misdirected profit) as well as protection *of* (the assurance of enforced liability, a linear and prescribed flow of accountability, attribution and value).

Exploitation of non-technical fellows can occur when work that is performed to create, maintain and extend the ecosystem, or to reach goals, remains unappreciated, undercompensated, and often unaccounted-for altogether. This can look like curating materials, planning events, doing the work of bringing people together ("for whom the Zoom waiting room admission message tolls"). In general, these *soft skills* are harder to value because they're harder to quantify, not because they're less valuable -- so often the "path to quantification" is by this conferring "property-ness". how – or whether – to value this work becomes murkier when one explores how it is expressed and contextualized by regulatory architecture that emerges to structure through definition. The contours and form of this work gives it shape in the legal structure that intermediates between performed actions and their value: non-compete agreements, intellectual property, agency and liability etc.

An example when analysing how to attribute contributions from non technical fellows, is the role of community manager. Community managers grow a project's network, educate users

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<sup>54</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017).

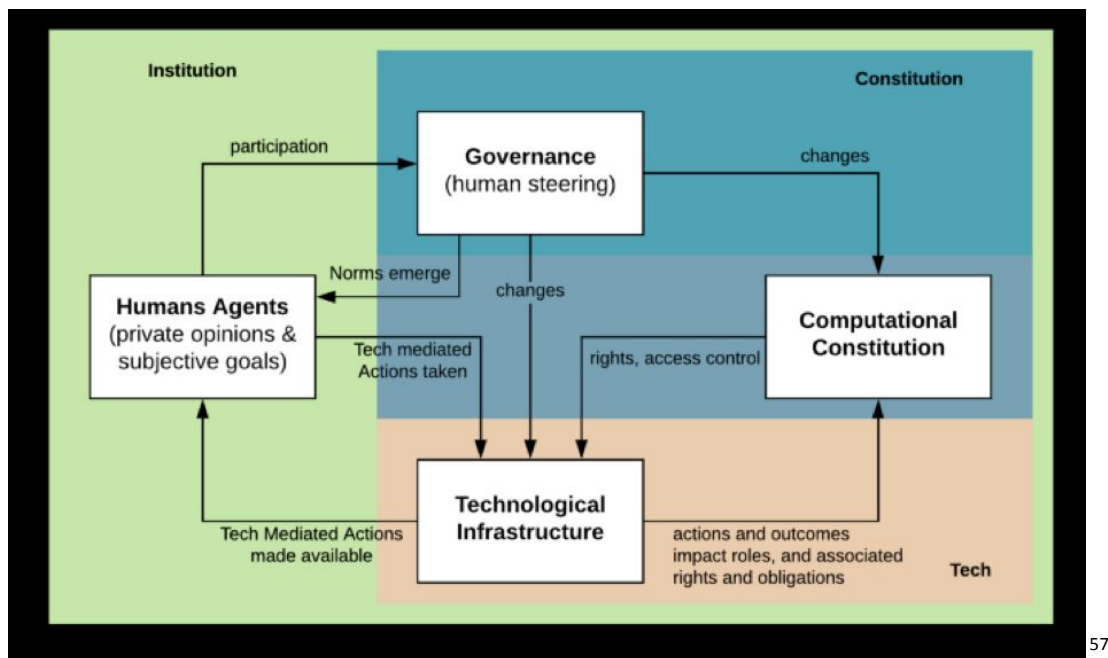
<sup>55</sup> Paulo Freire, *Pedagogy Of The Oppressed* (10th edn, Penguin Classics 2017).

and raise awareness, yet the value of the contributions are abstracted and less direct. The community manager’s contributions are not easily definable by regulatory boundaries and can’t be defined as property – *except* in circumstances where the whole thing can be wrapped in the net of IP because it falls under a patent. This discrepancy highlights the relationship between property generation and functional roles.

One way to reconcile this relationship is by weaving these points of creator and "created value" in an attribution network, defined by Michael Zargham as,

*“[...] attribution network is any directed graph where a link assigns credit (or credibility) from the source to the destination. Examples of such networks include academic citations, software dependencies and twitter style social networks (following assigns credibility).”*<sup>56</sup>

A social model based on value discovery via attribution will be inherently dynamic, forced to perceive and measure based on flows and relationality. What is input to such a system must be proportional to a symmetrical output somewhere -- influence exerted, resources extracted, new links formed between nodes whose interactions generate new value. This also means that a holistic view of value creation is necessarily taken, not only of objects that move through the system but the forces in the system that move the objects.



A flow map showing directional dynamics between actors, agents, and the institutions and infrastructures impacting and shaping one another. (Credit: Michael Zargham & Shermin Voshmgir, in Tan, 2020).

<sup>56</sup> Michael Zargham, Contextualizing Cred: SourceCred Research Status Report, May 2019 <https://hackmd.io/@OCPoXLLVQvyCK3HvlpBEXg/SkY7VvQnV?type=view>

<sup>57</sup> Kelsey Nabben and Michael Zargham, Algorithms as a Policy and Michael Zargham & Shermin Voshmgir, in Tan, 2020 <https://kelsienabben.substack.com/p/algorithms-as-policy>

Just as property ownership is a way of containing and condensing value, squeezing it into units that can be easily appraised and transferred, attribution networks can reframe value as vectors of contribution. This creates formalized crystals of accounting, and accountability, linked in a network reflecting and refracting within and between another like an [Indra's net](#) of value. Within the regulatory architecture of a system of patents, agreements and defined accountability flow, the “ephemeral” becomes defined, weighted in the real, *by becoming property* - as when the community manager, in the example above, defines and packages a replicable system for community engagement. Another example of this is a product designer or business consultant conferring "property-ness" upon a unique mode of conduct by designating it as a patentable System or Method/Process<sup>58</sup> (for example, Scrum in product design<sup>59</sup> or the Business Model Canvas, which remains open-source in its basic form<sup>60</sup>).

Accounting in an attribution network model creates the possibility of conferring this "property of property" – the replicability and transferability, the clear assignation and accreditation of value and generating/receiving parties – to lie with credit instead of output.

### ***Compensating the Commons***

*“The act of measurement is not neutral”*

– Karen Levy<sup>61</sup>

Although a transmutation of credit and accountability from a property-based framework to one of attribution seems at first an appealing subversion, many of the same challenges rear their head especially in an expansive, open-source model:

- How is decision-making power determined, concentrated, wielded and kept in check?
- Is blame, liability, responsibility for the successes and challenges within the network reflected in each individual's access to this power?
- Is the amount of power proportional to the influence exerted on the network by each individual (e.g. by social and financial capital) accurately reflected in the attribution model?
- The overarching question behind each of these, that makes it so hard to break from the status quo without replicating it: How is attribution measured? Who determines that measurement, and along what parameters?

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<sup>58</sup> "Can You Patent A Process: Everything You Need to Know," Upcounsel <https://www.upcounsel.com/can-you-patent-a-process>

<sup>59</sup> Scrum Guides <https://www.scrumguides.org/>

<sup>60</sup> The Business Model Canvas, <https://www.strategyzer.com/canvas/business-model-canvas>

<sup>61</sup> Karen Levy, 'Intimate Surveillance' (2015) 51 Idaho Law Review [\[https://digitalcommons.law.uidaho.edu/idaho-law-review/vol51/iss3/5/\]](https://digitalcommons.law.uidaho.edu/idaho-law-review/vol51/iss3/5/) Acc: 29 January 2021.



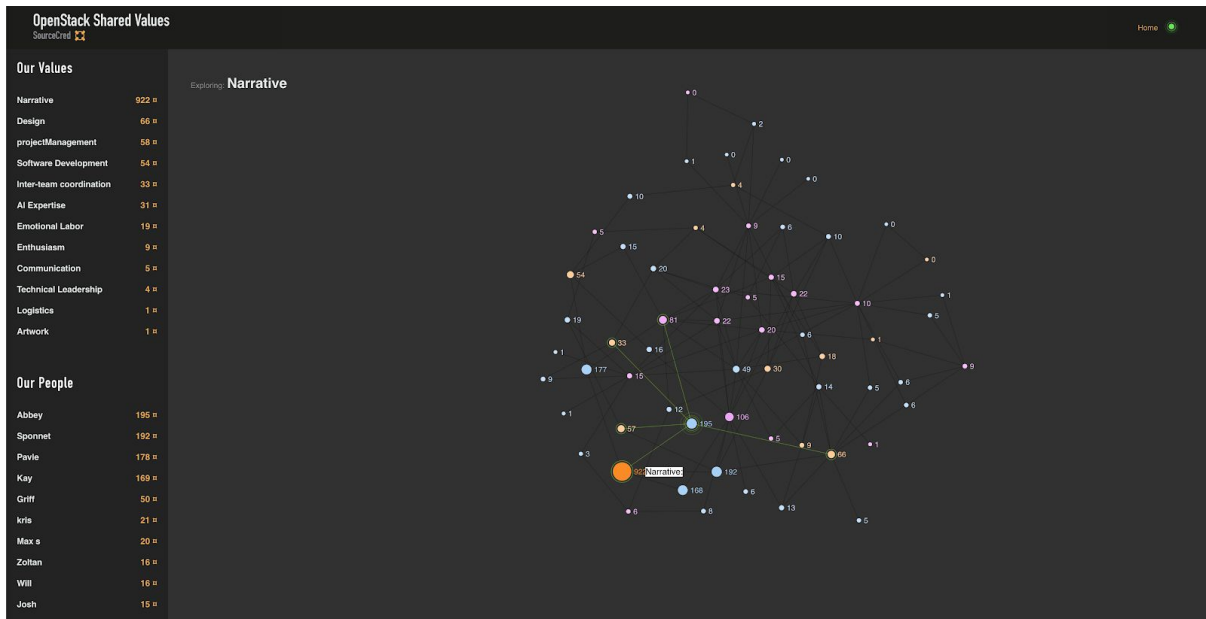
This difficulty of measurement, even when defined and performed by well-intentioned network actors, makes the property model again start to look appealing. It is innately easier to attribute value by lines of code or units of time than the intangible benefits of forging the beginnings of a new partnership or connecting with a future collaborator. It's even more straightforward when this value doesn't need to be quantified top-down at all, but can emerge from the market itself through price discovery (a primary benefit and attribute of property). This becomes especially challenging when we return to these networks as they apply not only to the open-source community but the art ecosystems we're examining.

To spool out another thought experiment, reflective of the one above about the community manager:

- How is the value of an artwork measured, for the value it brings as an asset not only to its creator in a transaction with a buyer but to the whole collective of which they're a part?
- Is it determined by the hours spent making it and some calculation of its aesthetic worth, or does it necessitate price discovery by defining it as property?
- How much value is created at the gallery opening for an artwork, in which an investor pledges to sponsor the collective's future work while enjoying drinks during a designated "Meet the Artists" hour?
- How to account for, if it's noticed and appreciated at all, the *lack of value lost* by the execution of the event going off smoothly, thanks to the logistics efforts of packing, shipping and installation?

Laid out in this way, it's not only easy to see the value, but absolute necessity, of the function performed by these interstitial roles. The conditions that have been created by the people identifying and catalyzing the potential for connection between patron and artist, investor and collective. In a property-based model, the only value being accounted for is the artwork itself - property in, property out, changing hands between its creator and consumer. In an expanded model of attribution, all of these roles can be accounted for – if some way of sufficiently measuring and expressing these can be defined.

To provide an illustrative example of attribution networks in action, Zargham shared the SourceCred attribution graph for building Commons Stack at Odyssey Hackathon in 2019:



"Odyssey Hackathon Prototype showing a SourceCred map for Odyssey Hackathon 2019 attributions, created by Dandelion Mané<sup>62</sup>

This graph, designed to reflect the contribution of an interdisciplinary team of designers, software developers, and representatives of the community's needs, shows the possibility of how credit can be assigned, expressed and compensated across a team that may otherwise not be able to express the value each created.

As Zargham says, explaining the vital need for such accounting methods:

*"Who decided whether and to what extent credit can flow upstream on links? Who decided whether there would be self-loops and how strong they are? Who decided what the alpha parameter should be? All of these are subjective choices and they have non-trivial ramifications on how credit is assigned, and once put into practice such a measure will have equally non-trivial affects on the behavior of participants seeking credit or compensation for their contributions."*<sup>63</sup>

By considering the self-loops of our community and own practices, where they stretch to their breaking point and where they turn in on themselves, we can begin to move beyond the constrictive "property-based model" to leverage the incentives and freedoms afforded by blockchain and open-source to pioneer truly novel, democratizing models of attributive compensation. In the final paragraphs of this section, we will examine The Sphere, an experiment that applies different methodologies and elements from open source and blockchain in order to further study and address problems within the art industry.

<sup>62</sup> Michael Zargham, Contextualizing Cred: SourceCred Research Status Report, May 2019 <https://hackmd.io/@OCPoXLLVQvyCK3HvlpBEXg/SkY7VvQnV?type=view>

<sup>63</sup> Michael Zargham, Contextualizing Cred: SourceCred Research Status Report, May 2019 <https://hackmd.io/@OCPoXLLVQvyCK3HvlpBEXg/SkY7VvQnV?type=view>

### **Case Study: The Sphere**

One example of a project committed to coupling design and development of blockchain-enabled cooperative mechanisms with the needs and input of the creator communities who will be its end-users is *The Sphere*:

*"A new business model for performing arts, that creates a radical shift in how we think of and manage IP (intellectual property) in order to stimulate artistic diversity and innovation and reduce inefficiencies. The Sphere has the potential to translate across many creative, educational and economic sectors, creating work opportunities for EU artists."*<sup>64</sup>

By an in-depth process of needs identification via interviews and mapping of the existing landscape in which these artists and other stakeholders operate, the Sphere is committed to alleviating some of the most onerous barriers to performance artists in Northern Europe being able to focus on creating and receiving a living wage for their efforts.

The Sphere described itself as a transdisciplinary research-creation collaboration endeavor<sup>65</sup> initiated by artists Sara de Vylder and Olle Saloranta Strandberg, facilitating the mutual exchange of artistic and economic flows. This is achieved by enabling stakeholders throughout the performing arts ecosystem to experiment with novel funding strategies, intellectual property allocation and collaboration frameworks.

The Sphere leads two workshop series in Stockholm bringing together circus artists, cryptoeconomists, token engineers, philosophers and game designers, with input from organizations like the Berlin Circus Festival, to identify the unique needs of performing artists and existing systems' failure to serve them.

The Sphere leverages blockchain technology together with open-source tools and praxis through four interlocking dimensions of creative and economic incentive alignment:

- The Anarchive - a dynamic archive of artistic process, production and dissemination providing points of entry and collaboration among creators and other stakeholders like audience investors;
- Smart contracts for rights management and Contributive Commons License - a blockchain-based rights management system designed to protect intellectual property rights, ensure creator retribution and generate revenue in an open-source economy, functioning like the P2P Foundation's Copyfair License<sup>66</sup>;

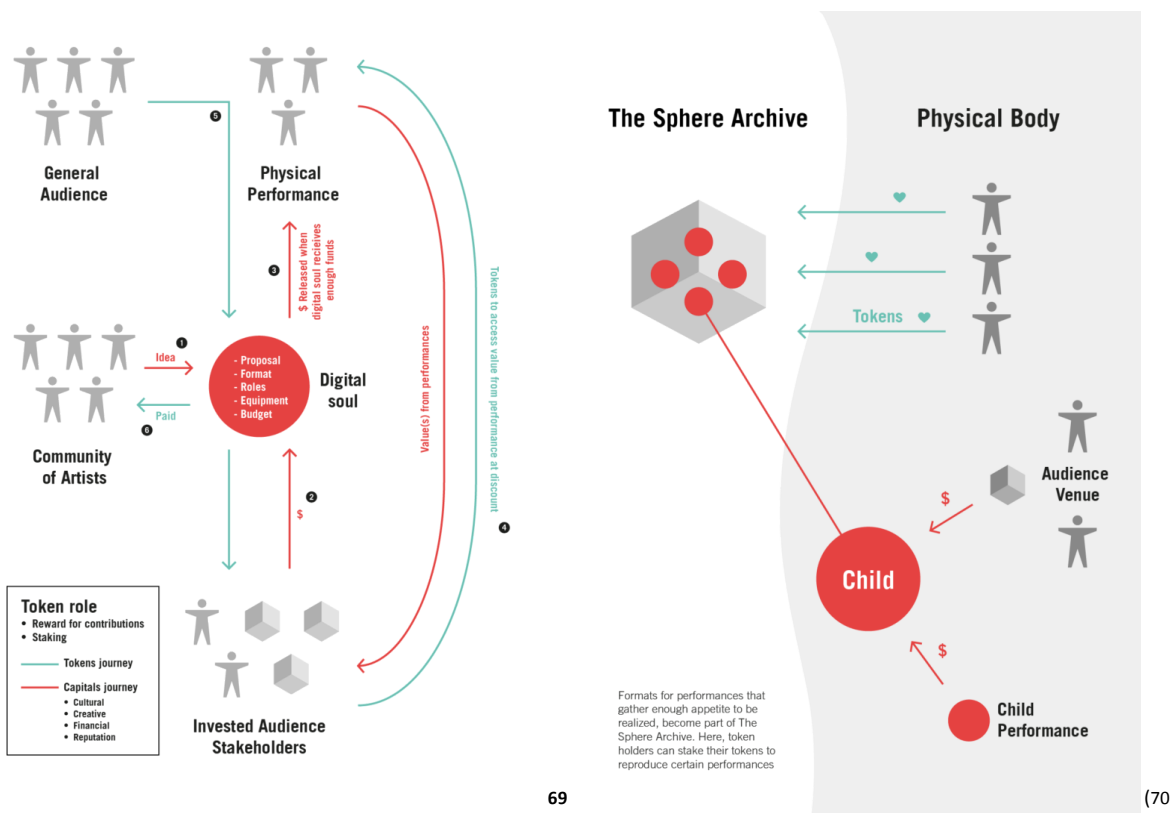
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<sup>64</sup> The Sphere website, <http://sfaren.se>

<sup>65</sup> The Sphere website, <http://sfaren.se>

<sup>66</sup> P2P Foundation' Wiki, CopyFair License [https://wiki.p2pfoundation.net/CopyFair\\_License](https://wiki.p2pfoundation.net/CopyFair_License)

- Contributive accounting system - based on the P2P foundation's research<sup>67</sup> into equitable, effective methods of value identification, tracking, measurement and redemption by "record[ing] everyone's contribution, evaluat[ing] these contributions, and calculat[ing] every participant's fair share"<sup>68</sup>;
- Crypto Economic model - A blockchain-native economic infrastructure for liquid ownership and dynamic governance by stakeholders throughout The Sphere's ecosystem, facilitating wealth redistribution and decision-making power proportional to investment of funding and labor (including by stakeholders like creators and audience members).



Tokenomic designs modeling token staking mechanisms across audience and artist stakeholders.

These mechanisms, currently being developed by working groups, are an expression of the Sphere's vision of creating a cyberphysicalcommons to sustain performance artists within the wider ecosystem of cultural work. The cyber-physical commons, as defined by Jeff Emmett and Michael Zargham,<sup>71</sup> combines the concept of cyber-physical systems<sup>72</sup> from

<sup>67</sup> Tiberius, Why do we need a contribution accounting system?, P2P foundation, January 2018. <https://blog.p2pfoundation.net/need-contribution-accounting-system/2018/01/19>

<sup>68</sup> Tiberius, Why do we need a contribution accounting system?, P2P foundation, January 2018. <https://blog.p2pfoundation.net/need-contribution-accounting-system/2018/01/19>

<sup>69</sup> The Sphere, Project Facts <http://salorantadevylder.com/projects/the-sphere/>

<sup>70</sup> he Sphere, Project Facts <http://salorantadevylder.com/projects/the-sphere/>

<sup>71</sup> Jeff Emmet, Automating Ostrom for Effective DAO Management, December 2019.

<https://medium.com/commonsstack/automating-ostrom-for-effective-dao-management-cfe7a7aea138>

<sup>72</sup> Cyber-Physical Systems, Ptolemy Project website, <https://ptolemy.berkeley.edu/projects/cps/>

network theory with Elinor Ostrom's principles of commons stewardship<sup>73</sup>. The idea here is that on-chain processes and protocols can reflect and enhance existing modes of cooperation, coordinating and transcribing resource management, decision-making and behavioral rewards. The collective is viewed as a complex system in which inputs (funding, member entrance, issues to determine by voting) impact the whole, calibrating to outputs through actions like voting and fund allocation. The Sphere is an experiment in inscribing protocols for equitable compensation and support. It translates these protocols into a tangible structure benefitting from blockchain technology while disambiguating it from end users to retain accessibility across target stakeholder groups of European performing artists, venues and audiences.

By weaving a "digital soul" of automated, immutable processes embedded in smart contracts together with tangible practices and outcomes in the real world — for example, a work funded and distributed according to the agreements of its creators and an investing audience — the Sphere hopes to tackle the challenge of bringing peer-to-peer technology to an arts cooperative.

They have initiated steps toward solving seemingly intractable issues, such as how to expand funding sources (e.g. by extending the donor/stakeholder model of grants to include philanthropic audience members) and targeting bureaucratic weak points that expose artists to exploitation and loss of funds (e.g. viable replacement for the status quo of organizations that offer support for paperwork processing, taxes etc. but charge exorbitant fees).

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<sup>73</sup> Ostrom, E.: *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press, UK, 1990

## Conclusion

2020 has been the most damaging year in our generation for the cultural workforce. To go into detail here would be overkill.

The reality of the cultural workforce is that it extends well beyond the creator, and the art world is made of a whole ecosystem which extends beyond the sole creator. Artists today usually have more than one role and although there is a fine balance between supporting them in their work and them becoming creative entrepreneurs, we need to go beyond the notion of the artists as a creator and nothing else. If we go back to the assumption that the creative role has only one dimension to it,, we go back to an idea that has put us in the place where we are today, where creative work is not valued or priced.

On the other side of the spectrum, 2020 has been one of the most fruitful years for the blockchain industry and its adoption. A flock of new users thanks to DeFi and the NFT explosion have joined the usual cryptocurrency aficionados, and big corporations are gravitating towards adoption and experimentation of both blockchain and digital assets.. In addition, we are currently experiencing a new “bull market”, which, in the context of the economic uncertainty that the past year brought, is bringing more people into cryptocurrencies. The cultural workforce is not an exception.

As platforms and teams evolve, the products become more specialized, better targeted and find their market niches. Art marketplaces have evolved dramatically from when we began our research in January 2019. High profile artists and high end products and artworks are now being marketed in carefully designed platforms that feature comprehensive onboarding flows, put artists in the spotlight, and educate both the audience and their users.

Venture Capitalists are now writing blogposts about art markets, NFTs, and the creative industry. The crypto community creates their own art, but at the same time, is turning towards becoming “NFT art collectors” - partly driven by the rise of the cryptocurrency market which gives them the opportunity to invest in art without the barriers of entry of the traditional art market we presented in previous sections.

From the initial 2019 research, to the April 2020 start of the work for this report, the authors saw little change in the problems presented. However, through the following months the tables have turned and finally, we can confirm the industry is making progress at a holistic and steady pace.

As we mentioned in our first report in 2019 and at the beginning of this report, we should strive to find a balance between the work of the crypto community, nascent technology and

the groups which we work with. Collaboration is key for the development of a sustainable system, which allows for wider adoption and long term vision and growth.

Some useful suggestions can be implemented by the proponent of the creators economy, Paul Saffo, in order to prepare for adversity and build sustainable structures and platforms:

*“Consider these rules for revolutionaries (...):*

*Rule 1: there are always winners and losers*

*Rule 2: in a revolution do not confuse the early results with the long term outcome*

*Rule 3: successful insurgents tend to become overpowerful incumbents*

*Rule 4: technologies of freedom inevitably become technologies of control*

*(...) negative outcomes are not inevitable provided we become vigilant”<sup>74</sup>*

Needless to say, these four rules for revolutionaries apply to the entirety of the actors mentioned in this report.

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<sup>74</sup> Paul Saffo and Stewart Brand, The Creator Economy, The Long Now. 2015  
<https://soundcloud.com/longnow/creator-economy>

## **Glossary**

Note for reader –

Some of the definitions we included in the glossary have been migrated from our 2019 report.

### **Commons**

Resources accessed by a community; and self-regulating, self-organizing communities that emerge around sharing these resources.

### **Cryptocurrencies**<sup>75</sup>

A cryptocurrency is a digital or virtual currency that uses cryptography for security. A cryptocurrency is difficult to counterfeit because of this security feature. Many cryptocurrencies are decentralized systems based on blockchain technology, a distributed ledger enforced by a disparate network of computers. A defining feature of a cryptocurrency, and arguably its biggest allure, is its organic nature; it is not issued by any central authority, rendering it theoretically immune to government interference or manipulation.

### **Cultural Workforce**

Though being a broad term, it is for the report the most suitable and encompassing word for the industry we are referring to. Cultural work encompasses any work that is done within the creative industry, meaning everyone from artists to administrators to technicians. We believe that it is important to talk about this workforce in a very inclusive way, as commonly what is seen as the creative workforce is solely the public-facing roles, and any work done behind the scene is not counted for.

### **DAO (Decentralized autonomous organization)**<sup>76</sup>

A Decentralized Autonomous Organization (DAO) is an organization that can fully function without the usual management structure that involves people. A DAO can also be defined as an organizational system that maintains and sustains itself based on smart contracts in which users determine its direction for the future by election.

### **Decentralized Finance**<sup>77</sup>

Decentralized finance (commonly referred to as DeFi) is finance that does not rely on central financial intermediaries such as brokerages, exchanges, or banks, and instead utilizes smart contracts on blockchains

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<sup>75</sup> <https://www.investopedia.com/terms/c/cryptocurrency.asp>

<sup>76</sup> <https://www.investinblockchain.com/decentralized-autonomous-organization-dao/>

<sup>77</sup> Decentralized Finance, Wikipedia ([https://en.wikipedia.org/wiki/Decentralized\\_finance](https://en.wikipedia.org/wiki/Decentralized_finance))



### **Democratization of the art world**

Distributing power more widely between the people currently involved is not enough; the art ecosystem needs to be fundamentally more inclusive—only then does the re-architecture of power and influence begin to benefit the full suite of contributors whose current work is mostly unrecognized.

### **Ethereum blockchain<sup>78</sup>**

Ethereum is a global, decentralized platform for money and new kinds of applications. On Ethereum, you can write code that controls money, and build applications accessible anywhere in the world.

### **Farming<sup>79</sup>**

Yield farming is the practice of staking or locking up cryptocurrencies in return for rewards.

### **Frontend and backend<sup>80</sup>**

In software engineering, the terms front end and back end refer to the separation of concerns between the presentation layer (front end), and the data access layer (back end) of a piece of software, or the physical infrastructure or hardware.

### **NFTs (Non fungible token)<sup>81</sup>**

Non-fungible tokens are blockchain assets that are designed to not be equal. NFTs work essentially as a database entry for any type of good.

### **Onchain**

Actions that happen “on the blockchain” and are therefore recorded within a digital ledger. If voting occurs on chain, it means that the votes are cast via blockchain mechanisms and recorded forever.

### **Open Source Software**

Open source software is software with source code that anyone can inspect, modify, and enhance.

### **P2P<sup>82</sup>**

Peer-to-peer, or P2P in its abbreviated form, refers to computer networks that use a distributed architecture. That means that all the computers or devices that are part of it share the workloads in the network. The computers or devices that are part of a

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<sup>78</sup> Blockgeeks website <https://blockgeeks.com/guides/ethereum/>

<sup>79</sup> Nikolai Kuznetsov, DeFi Yield Farming Explained, Cointelegraph, September 2020 (<https://cointelegraph.com/explained/defi-yield-farming-explained>)

<sup>80</sup> Frontend and backend, Wikipedia ([https://en.wikipedia.org/wiki/Front\\_end\\_and\\_back\\_end](https://en.wikipedia.org/wiki/Front_end_and_back_end))

<sup>81</sup> Coincentral, NFTs Non Fungible Tokens <https://coincentral.com/nfts-non-fungible-tokens/>

<sup>82</sup> Digital Citizen, What is Peer-to-Peer <https://www.digitalcitizen.life/what-is-p2p-peer-to-peer>

peer-to-peer network are called peers. Each peer from a peer-to-peer network is equal to the other peers. There are no privileged peers, and there is no central administrator device in the center of the network.

### **Regulatory Architecture**<sup>83</sup>

Legislative and regulatory acts (hereafter jointly called “acts”) rarely exist in an isolated way. Therefore, it is important to fit them well into the overall regulatory architecture for the given sector or field. Regulatory architecture also refers here to the form and meaning that acts, agreements, interactions and behaviors take on when placed in the context of laws and regulations (e.g. when a financial action becomes a "taxable event" or a couple's commitment is formally codified into law with a marriage contract).

### **Smart contract**<sup>84</sup>

A smart contract is a computer protocol intended to digitally facilitate, verify, or enforce the negotiation or performance of a contract. Smart contracts allow the performance of credible transactions without third parties.

### **Token**<sup>85</sup>

A unit of value that an organization creates to self-govern its business model, and empower its users to interact with its products, while facilitating the distribution and sharing of rewards and benefits to all of its stakeholders.

### **Uniswap**<sup>86</sup>

Uniswap is a protocol on Ethereum for swapping ERC20 tokens. Unlike most exchanges, which are designed to take fees, Uniswap is designed to function as a public good—a tool for the community trade tokens without platform fees or middlemen. Also unlike most exchanges, which match buyers and sellers to determine prices and execute trades, Uniswap uses a simple math equation and pools of tokens and ETH to do the same job.

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<sup>83</sup> How to Regulate Website <https://www.howtoregulate.org/reg-architecture/>

<sup>84</sup> Blockgeeks website <https://blockgeeks.com/guides/smart-contracts/>

<sup>85</sup> William Mouyagar, The Business Blockchain <http://thebusinessblockchain.com/>

<sup>86</sup> Ki Chong Tran, What is Uniswap, Decrypt, Sept 2020 (<https://decrypt.co/resources/what-is-uniswap>)

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**Matt Condon** founded Softspot and is lovingly referred to as the grandfather of NFTs. At Softspot he designs and builds beautiful interfaces and infrastructure for the future of online art events like art fairs, museum collections, and gallery openings. He's spoken at length about spatial interfaces and the translation of experience of IRL to URL and podcasts at Digitally Rare with Jonathan Mann where they discuss digital ownership and its effects on the world. He is compiling a book of notes on the synthesis of digital space. Matt lives anywhere and everywhere, resides in Brooklyn, rides a bike, and takes pictures of doors.

**María Paula Fernández** is an Advisor to the Board of Directors at Golem Network, and in addition, serves as the Founder and Managing Director of ETHBerlin/ Department of Decentralization. Maria Paula has been a part of the crypto community since early 2017, joining the Web3 Foundation/Polkadot on their very early days.

In her spare time, María Paula leverages the Department of Decentralization/ETHBerlin collective to explore different verticals of the community, from social experiments such as the Berlin culture and hacking festivals, to project managing the Ethereum Görli Testnet. One of the favorite topics to cover is the intersection of technology and art - having produced several art exhibitions and educational initiatives, including being one of the authors of the 2019 report, *There's No Such Thing As Blockchain Art*.

**Stina Gustafsson** is a curator, culture strategist and independent researcher specialising in the development of the art world and the cultural workforce through nascent technologies. She is the Creative Director for new online exhibition and events platform Softspot.

On the side of her career, she leads the art initiative for the Department of Decentralization/ETHBerlin, for which she has ideated, curated and produced several exhibitions and educational events. In 2019, she co-authored the first DoD report on art and blockchain - *There is No Such Thing as Blockchain Art*.

During her career, she's worked with a wide variety of cultural and arts organisations and companies, such as museum and research lab SAVVY Contemporary, future research agency Future Foundation and artists such as Arvida Bystörm, Sebastian Schmieg and Holly Hendry.

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