PROOF OF HUMANITY: ETHNOGRAPHIC RESEARCH OF A "DEMOCRATIC" DAO
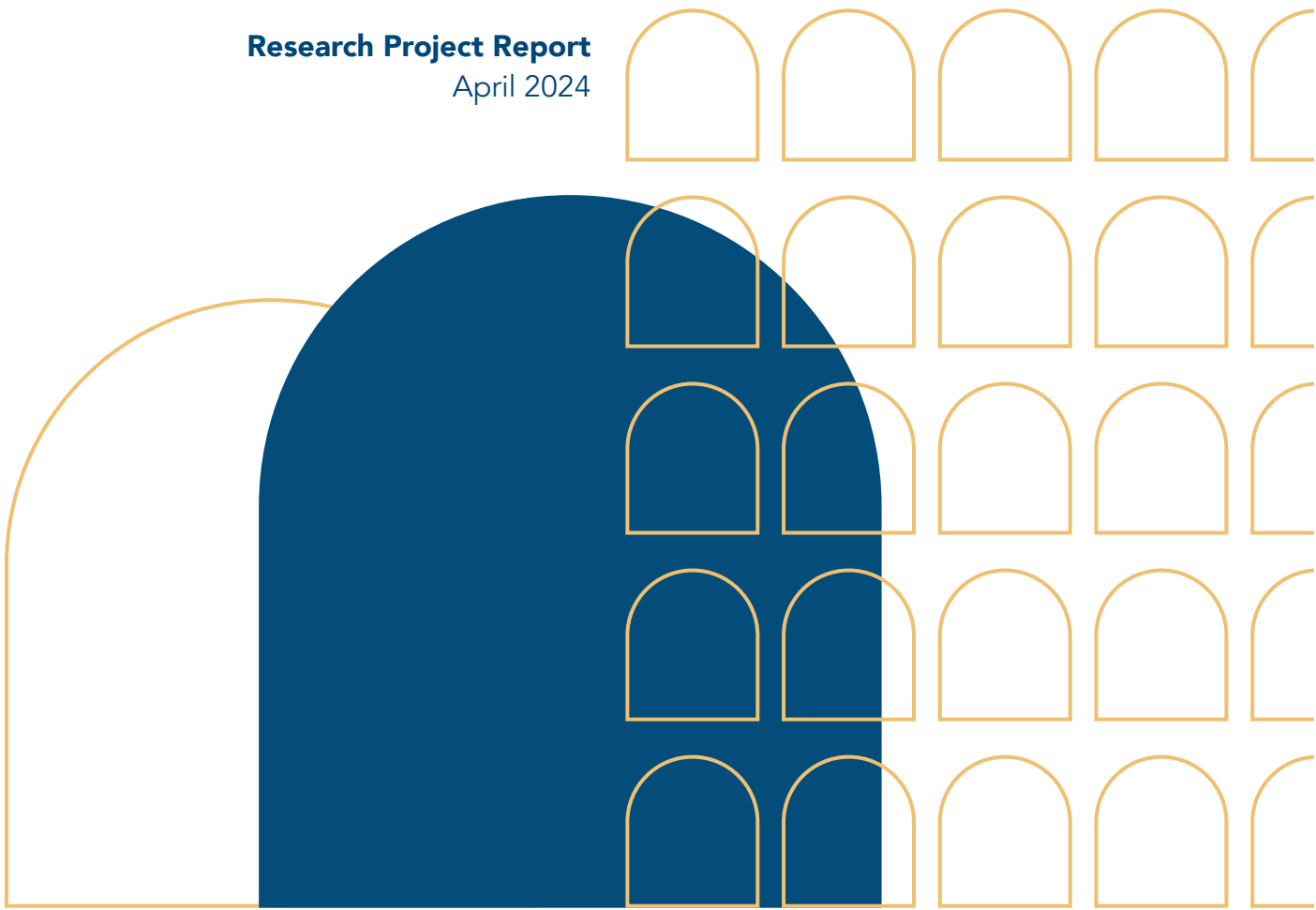
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Acknowledgements

Executive Summary

Context: In 2021, the Proof of Humanity (PoH) project debuted as the first Sybil-resistant registry of "unique and singular" individuals on the Ethereum network. The project offers an economic incentive through collaboration with the Universal Basic Income (UBI) smart contract, which distributes $UBI cryptocurrency tokens to registered humans. The PoH registry, equipped with measures to combat fraudulent registrations or bot impersonations, allows users to challenge suspicious profiles. These challenges are adjudicated by Kleros' Humanity Court. Within two years, over 17,000 registrants joined the registry. The founding organization, Kleros Cooperative, announced the registry would be governed by a decentralized autonomous organization (DAO). The launch of the PoH DAO, the first in the Ethereum ecosystem to implement a 1-person-1-vote liquid democracy system, challenged traditional token-weighted voting mechanisms in DAO governance. Despite gaining recognition and endorsement from influential figures like Ethereum co-founder Vitalik Buterin, the community grappled with irreconcilable long-term visions, leading to the adoption of a binding proposal to "fork" by the end of 2022, highlighting underlying challenges within the PoH DAO. In 2022, our team at BlockchainGov conducted a research study to explore the governance dynamics that led to the PoH DAO's governance crisis and subsequent decision to "fork."

Research Methodology: Our ethnographic research was carried out through a combination of online participant observation, countless informal conversations, fourteen recorded semi-structured interviews, and a desk review of publicly available information on the PoH registry and PoH DAO.

Main research question: What governance dynamics led to the Proof of Humanity DAO's crisis and subsequent decision to "fork" in November 2022?

- **Research sub-question 1:** To what extent can the governance dynamics of the PoH DAO be described and analyzed using the concepts and terminology typical of modern nation-state democracies?

- **Research sub-question 2:** How could the democratic ideal and best practices of modern democracies have influenced the governance design of the PoH DAO to manage its diverse community peacefully and prevent its governance crisis?

Research Hypothesis: The decision of the PoH DAO to fork in November 2022 was the culmination of an enduring governance crisis stemming from an absence of robust and transparent governance mechanisms, processes, rules, and bodies to help manage and harmonize the interests of varied groups within the organization. Without the proper governance mechanisms, the PoH DAO experienced a gradual and ultimately irreconcilable polarization among its members.

Findings:

1. **Constituting a Democracy**

   1.a. Incomplete early governance design: The PoH DAO was initiated as a pioneering venture in liquid democracy governance, endowed with a bold mission and a set of off-chain governance instruments for proposing, voting on, and implementing decisions on-chain. Despite its innovative approach, it was missing key governance mechanisms. This oversight in the PoH DAO's initial governance framework led to internal fragmentation, as it did not offer explicit tools or procedures for resolving disputes and achieving consensus within the community.

1.b. Two partnering organizations with colliding expectations: Despite initially collaborating for mutual benefit, the two organizations involved in the launch of PoH and UBI (Kleros Cooperative and Democracy Earth Foundation) had vastly different, and at times colliding, expectations for the PoH project as a whole. These expectations partially derived from the diverse backgrounds and visions each organization was pursuing independently.

2. **Citizenship and The Demos**

   2.a. Heterogeneous members' backgrounds and interests: Active members who participated in PoH DAO's deliberations came from varied backgrounds and had very different interests in the project, which consolidated into polarized governance views.

   2.b. Division of the minds and perceptions about factions: Community members perceived the PoH DAO as a split between two opposing factions and this perception was openly expressed on various platforms and forums. This public portrayal of the community as deeply polarized ultimately became a self-fulfilling prophecy, reinforcing perceptions, attitudes, and actions of mistrust toward the "other" side.

3. **Political Deliberation**

   3.a. Uncompromising or "convex" deliberation mindset: Numerous debates surrounding the PoH registry and the PoH DAO were framed as irreconcilable tradeoffs and addressed with a confrontational and uncompromising mentality. This prevented factions from finding common ground.

   3.b. Counter-productive deliberation practices: Some of the most widespread deliberation practices within the PoH DAO exhibited problematic characteristics that impeded a constructive deliberation environment.

4. **The Law**

   4.a. Incomplete and vague legislative framework and legislation: While innovative, the legislative framework and legislation adopted by the PoH DAO were not robust enough to prevent or minimize polarization. Some crucial legal provisions were missing, and the legal framework contained vague excerpts that allowed it to be "weaponized" by both factions.

5. **The Government**

   5.a. Informal and partisan government bodies and officials: The governing bodies and officials of the PoH DAO carried out functions similar to a state's three branches of power. However, their nature reflected the implicit power structures of the PoH DAO emerging after the project's launch.

6. **Governance Platforms**

   6.a. Inadequate Governance Sites or Surfaces: The nature and design of the off-chain platforms used for governance, including deliberation and voting, made them relatively inaccessible or inadequate for their performed function. The PoH DAO also refrained from "dogfooding" its technological innovations for deliberation and resolution of its internal disputes, which could have served as good mechanisms for harmonizing its diverse community.

7. Governance System

7.a. Weaponizable Governance System Design: In many instances, the PoH DAO governance system and voting mechanism designs fell prey to the Tyranny of the Majority and the monopolization of voting power by charismatic leaders of each perceived faction.

Preamble

In 2021, the Proof of Humanity (PoH) registry emerged as the first Sybil-resistant list of "unique and singular" humans on the Ethereum network. Giving an economic incentive for humans to join the project, the PoH registry went live in collaboration with the Universal Basic Income (UBI) smart contract, which distributed $UBI cryptocurrency tokens to all registered humans, mirroring the concept of a universal basic income. To maintain its integrity, the PoH registry had measures to counteract attempts by users to register multiple times or use bots to impersonate humans, commonly known as "Sybils" or fake personas. Users could challenge suspicious profiles and have these cases adjudicated by a Kleros' Humanity Court. The PoH registry, founded by the Kleros Cooperative, was significantly influenced in its operational and governance structure through utilization of Kleros Court, a decentralized dispute resolution system provider, which is another product developed by the Kleros Cooperative.

In under two years, the PoH registry attracted over 17.000 registrants. Drawing on the digital identity system it had developed, Kleros Cooperative announced the launch of the PoH Decentralized Autonomous Organization (DAO). This collective was entrusted with tasks such as allocating funds from a common treasury and deciding the future direction of the PoH registry. Notably, the PoH DAO was the first in the Ethereum ecosystem to implement a 1-person-1-vote liquid democracy system. By deviating from the prevalent token-weighted voting mechanisms in DAO governance, which are usually criticized for their plutocratic tendencies, the PoH DAO marked a step forward in establishing more inclusive governance frameworks. This achievement was consolidated by the active endorsement of many influential figures, such as Ethereum co-founder Vitalik Buterin, who also joined the PoH registry. The project garnered wide recognition, including a grant from Gitcoin, highlighting its status as "the first democratic DAO on Ethereum, and the largest Universal Basic Income experiment using cryptocurrencies to date."

BlockchainGov is a 5-year long (2021-2026) project funded by the European Research Council through a €2M grant, operating at the Centre national de la recherche scientifique (CNRS) in Paris, France, and the European Union Institute in Florence, Italy. As an interdisciplinary research team comprising legal scholars, social and political scientists, computer scientists, and blockchain engineers, BlockchainGov focuses on studying the impact of blockchain technology on governance and its consequences for legitimacy and trust. Naturally, the PoH DAO offered a unique opportunity to delve into the opportunities, challenges, and theoretical implications of blockchain governance systems. Beyond our academic interest, in the summer of 2022, members of the PoH DAO community reached out to BlockchainGov, expressing concern about an ongoing polarization and increasing governance crisis within the collective. Consequently, we decided to conduct ethnographic research on the governance dynamics within the PoH DAO to support the community in overcoming its challenges.

Our research team was well-positioned to pursue ethnographic research of the PoH DAO for various reasons. Firstly, some BlockchainGov members were or had been involved with stakeholders contributing to the PoH project, providing us with insider perspectives crucial to a deeper understanding of the situation. Secondly, by the time community members reached out, we had already been closely following the developments within the PoH DAO for our own research agenda. These aspects proved especially useful as we moved on with our project. Over the six months in which we actively engaged in research to better understand the PoH registry and PoH DAO, it became apparent that the community as a whole was facing challenges and that different parts were presenting long-term visions and solutions that seemed unreconcilable. Our intuition was quickly confirmed when the PoH DAO officially passed a binding proposal to "fork" (HIP 74) at the end of 2022.

Research Goal

Given the community's intention to "fork" or to split the PoH registry and the PoH DAO into two distinct projects, our research was oriented to enhancing the community's comprehension and offering helpful insights into the PoH DAO's governance evolution since it began, the key reasons behind its crisis, and why its governance system had difficulty in mediating compromises among various groups. We hope that these insights become valuable reference points for the PoH DAO community itself while also contributing to the existing academic literature exploring the governance of DAOs.

Research Design

Given the community's intention to "fork" or to split the PoH registry and the PoH DAO into two distinct projects, we adapted our research design in the following way:

- **Main research question:** What governance dynamics led to the Proof of Humanity DAO's crisis and subsequent decision to "fork" in November 2022?

    ○ **Research sub-question 1:** To what extent can the governance dynamics of the PoH DAO be described and analyzed using the concepts and terminology typical of modern nation-state democracies?

    ○ **Research sub-question 2:** How could the democratic ideal and best practices of modern democracies have influenced the governance design of the PoH DAO to manage its diverse community peacefully and prevent its governance crisis?

- **Research Assumption:** The decision of the PoH DAO to "fork" in November 2022 should not be seen as inherently positive or inevitable. Firstly, duplicating the PoH registry to be managed by different DAOs effectively undermines the idea and advantage of having a "singular decentralized registry of verified humans" that can be integrated with other DApps requiring strong Sybil resistance. Secondly, while diversity within any community is inescapable, strident polarization in DAOs can be avoided or minimized by designing better governance mechanisms.

- **Research Hypothesis:** Although the community regarded itself as the "first democratic DAO in the Ethereum ecosystem," the PoH DAO lacked robust democratic governance mechanisms. These mechanisms were needed to manage and align the diverse interests within the project effectively. This deficiency led to a gradual yet irreconcilable polarization, culminating in the decision to "fork" in November 2022.

- **Methodology:** We conducted our ethnographic research through online participant observation, fourteen semi-structured interviews, and a desk review of publicly available information about the PoH registry and the PoH DAO. The primary sources of data included:

    ○ Publicly available conversations held on PoH governance channels and tools, including the PoH DAO governance forum, Telegram groups, Tweets posted by PoH DAO members, and talks or articles authored by PoH DAO members available online.

    ○ Publicly available documents and dashboards.

- ○ Fourteen semi-structured interviews were conducted with PoH DAO members. In compliance with BlockchainGov's research ethics standards, which are approved by EUI and CERSA, we ensured that all interviewees signed the necessary community consent forms. This process guaranteed that every interviewee was fully aware of and consented to the collection, use, and publication of the data they shared regarding the PoH DAO community, specifically for our research project.

- ○ Observations contributed by two members of the BlockchainGov research team, based on their engagement with PoH DAO stakeholders:

  - » Sofia Cossar, previously a researcher at the Democracy Earth Foundation, applied for the role of Project Manager at PoH DAO in collaboration with Paula Berman.

  - » Jamilya Kamalova holds a research position at the Kleros Cooperative.

The preliminary findings cited in this report were presented to the PoH DAO at the beginning of 2023. Our research team shared a document in English and Spanish in the PoH DAO's governance forum. We also hosted two community calls, one in English and one in Spanish, to present the findings and receive feedback from PoH DAO members. The community was encouraged to submit written feedback through a Google form. The BlockchainGov research team integrated the relevant feedback into the original document in 2024 and tailored the report for academic publication.

Theoretical Background

In our effort to unveil the causes that had led to the crisis in the PoH DAO, one aspect consistently highlighted by the community was its status as the "first democratic DAO on Ethereum." One of the interviewees said, "It was a novel development in the Ethereum ecosystem, where most projects were plutocratic or token-weighted voting. PoH is probably one of the first and most legitimate democratic experiments with Ethereum." This sentiment inspired us to frame our analysis using modern nation-state democracies as an analogy and liberal and critical democratic theory as a theoretical lens. Firstly, to understand what happened — particularly, how the PoH DAO governed itself. Secondly, explore ways the PoH DOA crisis could have been prevented or contained.

As mentioned above, our research operated under the premise that the crisis was not a positive or inevitable development. Our hypothesis argues that a more robustly democratic governance model could have better managed the PoH DAO diverse community, preventing deep-seated polarization. Examples of governance mechanisms in modern nation-state democracies and insights from democratic academic literature helped us address our case study. However, this exercise was conducted with caution. On the one hand, transitioning from legal-political systems like nation-state democracies to techno-political systems such as DAOs is far from a direct process. On the other hand, although modern democracies, especially Western liberal democracies, might offer frameworks more fitting than those of autocratic systems to understand how DAOs do and should govern themselves, they are not without their flaws and complexities. Even then, in contrast to more autocratic regimes, the "democratic ideal" and modern democracies help cultivate—as opposed to solely impose—plural and peaceful coexistence of the demos. For that reason, they remain a valuable frame of reference to orient the understanding of DAOs aspiring to inclusive governance structures.

Report Structure

This report is structured as follows:

- The "DAOs, Formal and Deep Democracy" section introduces the concept of blockchain technology, DAOs, and DAO governance practices. It also narrates the origin of the PoH registry and the PoH DAO and contextualizes the governance crisis. Furthermore, it addresses the foundations of modern democracies and the democratic ideal from a historical, philosophical, and political science perspective by distinguishing between "formal" and "deeper" democracy.

- The "Findings" section directly addresses the research questions by presenting findings across six aspects of the PoH DAO governance: constituting a democracy, citizenship and the demos, political deliberation, the law, the government, governance platforms, and governance system.

- The "Timeline of Events" section details the most significant events at the PoH DAO in chronological order, spanning from August 2014 to November 2022.

- The conclusion summarizes the research findings and proposes potential directions for future collaboration with the PoH DAO and overarching research on the governance of blockchain systems.

I. DAOs, Formal and Deep Democracy

By definition, DAOs are internet-based collaborative groups with specific goals, utilizing smart contracts on blockchain networks and digital assets like tokens and cryptocurrencies to self-govern (Hassan & De Filippi 2021). The landscape of DAOs today is diverse, and there is no universal formula for structuring their governance (World Economic Forum 2022, 2023). Because of the design of the underlying block-chain technology, DAOs are architecturally decentralized, with the generated transaction data stored in the many nodes that comprise a distributed ledger. However, the extent of their political decentral-ization, defined by the number of entities with adequate power to make governance decisions, is not predetermined (Buterin, 2017). While anyone can initiate a DAO, it's often the case that the software developers and founders of the underlying technologies wield significant decision-making power, espe-cially in the early stages. Over time, DAOs may tend towards "progressive decentralization," whereby founding teams and core developers give control over the DAO governance away to the community, encouraging their participation and ownership (Walden 2020). Yet, even when community members can vote on several issues, most DAOs remain plutocratic or "ruled by the richest" since voting rights are allocated proportionally to token holdings.

The advent of the "Proof-of-Personhood" concept in 2017, enabling the verification of unique and sin-gular digital identities (Borge et al. 2017), marked a pivotal advancement in DAO governance. This breakthrough established the foundation for "democratizing" blockchain systems, including DAOs. Con-cretely, it facilitated the implementation of governance mechanisms like 1-person-1-vote, steering away from token-weighted systems and towards more equitable representation in decision-making process-es (Siddarth et al. 2020). The PoH registry DApp, developed by the Kleros Cooperative and governed by the PoH DAO, was among the first to integrate a Proof-of-Personhood protocol. Launched in 2021, early communications, including posts on Kleros' blog, highlighted the PoH DAO as "the first ever truly democratic 1-person-1-vote governance system with open participation," marking it as a significant innovation for democracy's future (Ragosa 2021, James 2021). The PoH DAO's governance model was notable for allowing registered individuals, recognized as "singular and unique," to directly vote on proposals (Human Improvement Proposals, or "HIPs") or delegate their votes via a platform called Snapshot. This mechanism was not a creation of the DAO itself, but a feature of liquid democracy – a fusion of direct and representative democratic elements that gained popularity over recent years (Blum & Zuber 2015). What the PoH DAO achieved, however, was implementing liquid democracy in a peer-to-peer network where individuals eligible to participate in governance could "prove their person-hood" without depending on centralized entities like companies or governments for identity verification.

Although the governance structure of the PoH DAO was innovative, it struggled to maintain unity in its community. Over time, factions with conflicting goals emerged, leading to growing mistrust and division. This discord resulted in a majority vote to "fork," or split the project into two separate entities. The abil-ity of blockchain communities to "exit" a system or "self-organize" and "fork" at a relatively low cost is often seen as a benefit of decentralized, non-coercive systems (De Filippi et al. 2022). However, we propose that in the PoH DAO's case, the decision to fork shouldn't automatically be viewed as positive or unavoidable. First, duplicating the PoH registry to be managed by different DAOs effectively under-mines the idea and advantage of having a "singular decentralized registry of verified humans" that can be integrated with other DApps requiring strong Sybil resistance. Second, while diversity within *any* community is inescapable, strident polarization in DAOs can be avoided or minimized by designing better governance mechanisms. Therefore, we view the decision to "fork" as a culmination of an esca-

lating governance crisis, the underlying causes of which our research aimed to uncover. Inspired by the community's sentiment that the PoH DAO was the "first democratic DAO on Ethereum," we decided to look into modern democracies as a basis for our analysis. We tried to understand the extent to which the concepts and terminology typical of modern democracies could be used to describe the PoH DAO's governance dynamics. Furthermore, we investigated how the governance design of the PoH DAO could have been influenced by the democratic ideal and best practices of modern democracies, which might have helped prevent the crisis and the subsequent decision to "fork."

Analyzing the PoH DAO through the lens of modern democracies involves exploring the "essence" of democracy drawing from historical, philosophical, and political science perspectives. Throughout our analysis, we relied on idealized notions of the structure of modern democracies, rather than delving into the messy and complex reality that any real implementation of democracy necessarily entails. Democracy, derived from the Ancient Greek "demos" (people) and "kratos" (rule), is commonly understood as governance by the people, for the people. Ancient Athens stands as the first recorded example of 'direct democracy,' where citizens themselves made governance decisions. Modern democracies, however, predominantly operate on a 'representative' basis, with governance executed by elected officials rather than direct public participation. The foundation of contemporary democratic systems is often linked to the American and French Revolutions of the 18th century, which marked a profound transformation in global political thought and governance structure. This shift was further propelled by two subsequent "waves of democratization": the first occurring post-World War II and the second at the conclusion of the Cold War (Huntington 1991). Currently, just over 30% of the world's countries are categorized as "fully democratic" (World Population Review n.d.).

Renowned American political theorist Robert A. Dahl (1989) posits that "democracy" is an ethical ideal that no modern state-nation can *fully* meet. Yet, scholars identify tangible components associated with different academic interpretations of democracy. From the "formal" perspective of liberal political theory, influenced by the writings of the American Founding Fathers, *democracies are institutional arrangements*. Namely, a collection of governance mechanisms that seek to uphold certain governance principles. As such, modern democracies reflect the attributes of the political entities they oversee, namely nation-states. According to international standards, nation-states: (1) have a stable population, (2) control a defined territorial region, (3) govern with authority over their territory and population, and (4) possess the sovereignty to manage their external affairs without external interference, as outlined in the Montevideo Convention on the Rights and Duties of States of 1933, Article 1. Modern democracies, especially those in the Western liberal tradition, feature unique aspects within their institutional framework: (5) they are rule of law systems where the law is supreme, applied equally and transparently to all, (6) they acknowledge certain segments of the population as citizens endowed with both rights and responsibilities in governance, particularly the rights to vote in public elections and to seek office, (7) they are governed by a supreme law or constitution that outlines: (a) the state's core principles like justice, fairness, equality, and prosperity, often detailed in the constitution's preamble, (b) the fundamental rights and freedoms of its citizens, aimed at curtailing state power, encompassing civil, political, economic, social, and cultural rights, (c) a tripartite government system – executive, legislative, and judiciary, to ensure checks and balances, (d) a predominantly representative democracy as the governance model, where the electorate's voice is mediated through freely and fairly elected representatives, as emphasized by the universal suffrage principle (Lijphart 1999).

Adopting the "emancipatory perspectivist" view of critical theory scholars, "democracy" is seen not as a universal ethical ideal but as one deeply rooted in the history, reality, and identity of a people. This viewpoint introduces the concept of "deep democracy," treating democracy as a "transformative ideal" that urges continuous and active efforts toward a democracy that is more sensitive to context (Green 1999, p. 9-10). Democracy, from this perspective, serves as a guiding principle to *"help rehabilitate bases for trust that can overcome historically well-warranted suspicions by outlining effective processes of participatory democratic inquiry, and by displaying the merits of a dynamic, individual-transforming, community-rebuilding ethic of democratic mutual commitment"* (p. 10). In "Deep Democracy: Community, Diversity, and Transformation," Judith Green (1999) emphasizes the inevitability of diversity in contemporary society and argues that embracing "deep democracy" enables us to honor diversity while fostering unity, finding harmony between "individual growth" and "collective well-being" (p. 63). Green suggests practical mechanisms to enhance democracy, including "democratic education for growth," "building cross-difference coalitions," "fostering intelligent communication for transformative inquiry," and "ensuring coordination and stability for long-term initiatives" (p. 55-93). These strategies aim to evolve formal democratic systems into vibrant networks that support the collective prosperity of communities.

While "formal" interpretations of democracy provide valuable insights into the events that took place at the PoH DAO, "emancipatory perspectivists" offer ideas on how the crisis might have been averted. However, we should approach this with caution. Transitioning from legal-political systems like those of nation-state democracies to techno-political systems such as DAOs is not straightforward. The comparison of blockchain systems to constitutional democracies, while not new (Alston 2019), requires careful consideration. DAOs have been touted as vehicles for "new forms of democracy" that promise stability, responsiveness to citizen needs, and the utilization of collective expertise for higher-quality decision-making (Merkle 2016). Nonetheless, replicating the democratic ideals and structures of traditional systems directly within DAOs is not feasible. DAOs necessitate a tailored approach, considering the unique aspects of blockchain technology and governance challenges. Conversely, even though modern democracies, particularly Western liberal democracies, may seem like more useful models for understanding DAO governance compared to autocratic systems, they come with their own set of issues. There is a wealth of literature, particularly in various strands of critical theory, that highlights how economic and social disparities can skew political power dynamics in democratic nation-states, leading to inadequate representation or outright marginalization of minority voices. Despite these challenges, exploring how to build socio-technological systems with "democracy in mind" remains an important normative task, aiming to create improved systems (Schneider 2024).

Our research suggests that although the PoH DAO was presented as democratic, it was missing crucial democratic governance mechanisms to manage its crisis effectively. Before we embarked on gathering detailed primary data, the theoretical framework outlined previously guided our initial insights. From a descriptive standpoint, the governance of the PoH DAO differs significantly from traditional modern nation-state democracies: it is not tied to physical geography, lacks a government enforced by the monopoly on violence, and does not serve a permanent population with legally enshrined rights and freedoms. Nevertheless, the protocols, smart contracts underpinning the PoH DApp, and the decision-making platforms online, delineate the digital "boundaries" of the DAO's domain. The PoH registry members (akin to "citizens") had certain rights and permissions, such as the ability to debate and vote on HIPs. Some of these HIPs, once approved, were integrated into the smart contracts, enabling automatic enforcement of decisions, and enacting a novel form of "executive power." The adjudication of

disputes by the Kleros' Humanity Court resembled the judicial branch, and the Mission Board's role in interpreting governance rules paralleled the judicial system's interpretative functions in nation-states. The process established for adopting HIPs, essentially a "rule on how to make rules," reflects principles found in state constitutions. Despite their differences, it seemed evident that there were notable parallels between the governance structures of modern nation-state democracies and the PoH DAO.

Normatively, from a "deep democracy" perspective, the PoH DAO's adoption of a 1-person-1-vote system was a positive step but insufficient for achieving substantive democracy. This superficial democratic approach was inadequate in addressing the community's escalating polarization. A governance model fostering unity and diversity requires a deeper appreciation of the community's history, realities, and identities. Drawing on Judith Green's insights (1999) and empirical best practices of "formal" modern democracies, potential governance mechanisms to promote unity and diversity may comprise:

1. Crafting a foundational document akin to a "constitution" that articulates the PoH project's purpose and shared values.

2. Creating designated spaces for educating members about blockchain technology, democratic practices, and the PoH DAO's specific objectives.

3. Encouraging the development of cross-boundary coalitions within the DAO, transcending differences in technical knowledge, geographic location, and economic background.

4. Establish platforms or channels for open, respectful, and informed discourse where members can engage in democratic transformative inquiry. This involves creating a safe space for debate, discussion, and exchanging ideas, where all voices are heard and considered.

5. Building frameworks for effective collaboration and enduring commitment to transformative goals, which includes defining clear governance roles, transparent decision-making, and methods for tracking and reviewing progress and accountability. Setting and periodically revisiting long-term objectives and strategies is also crucial.

Our descriptive and normative intuitions, paired with our research questions, assumptions, and hypothesis, guided the analysis of observational and interview data as well as the timeline of events and drafting of research findings detailed in the rest of the report.

II. The Findings

Here, we present the results of our study on the development of the PoH DAO's governance, the factors leading to its crisis, and the eventual decision to "fork." Our findings draw upon our theoretical understanding of DAOs and "formal" and "deep" democracy perspectives, alongside a detailed timeline of events introduced in the next section.

1. Constituting a Democracy

The majority of modern democracies resulted from peaceful or armed revolutions led by dissatisfied parts of the population, which, at an earlier or later stage, adopted a constitution or supreme law. This section will explore how the PoH DAO was "constituted" and which aspects of its early governance design may have contributed to the crisis.

1.a. Incomplete Early Governance Design

> Key takeaway: The PoH DAO was initiated as a pioneering venture in liquid democracy governance, endowed with a bold mission and a suite of off-chain governance instruments for proposing, voting on, and implementing decisions on-chain. Despite its innovative approach, it was missing key governance mechanisms. This oversight in the PoH DAO's initial governance framework led to internal fragmentation, as it did not offer explicit tools or procedures for resolving disputes and achieving consensus within the community.

The initial factor leading to the PoH DAO governance crisis stemmed from the nascent stages' incomplete governance structures. This deficiency facilitated the consolidation of fragmentation, mistrust, and conflict within the community, as there were no clear mechanisms in place for reconciliation. Critical omissions included a consensus on the PoH DAO's animating purpose and effective conflict mitigation and resolution mechanisms (Alston 2022). In democratic *lingo*, the PoH DAO failed to adopt a "constitution" that could have served as a supreme law guiding its governance. These governance mechanisms, had they been included, might have helped prevent the escalation of misalignment and mistrust within the community.

a. **The PoH DAO launched as an innovative liquid democracy governance experiment with an ambitious mandate and a suite of off-chain governance mechanisms and tools.** The PoH DAO was the first one in the Ethereum ecosystem to give one vote to each participant, which they could cast directly or delegate to other community members. The DAO community was empowered to influence major governance aspects: the policies of the PoH registry DApp, the rules and parameters governing the UBI contract, and the distribution of 4,000,000 UBI tokens earmarked for the DAO's operational expenses. Governance within the PoH DAO was designed to occur predominantly off-chain. This approach meant that discussions and voting on proposals took place on digital platforms outside the blockchain, with the outcomes later implemented into the protocol or smart contracts by developers. This method contrasts with on-chain governance systems, where votes are executed and recorded directly on the blockchain. To facilitate its governance processes, the PoH DAO introduced several platforms: a governance forum open to all (not just PoH registry DApp members) for submitting and deliberating on HIPs; a Snapshot page exclusive to individuals registered in the PoH registry DApp for off-chain voting on HIPs; and

a Kleros governor contract designed to enact Snapshot votes into tangible changes within the relevant smart contracts. This comprehensive framework aimed to democratize decision-making and foster a participatory governance culture within the PoH DAO community.

b. **This initial governance setup appeared adequate to some.** Proponents of minimal governance in blockchain systems might view the PoH DAO's initial governance design as adequate (Ehrsam 2020). Some interviewees suggested that the setup was intended to foster community-led, democratic development of legitimate governance structures over time. Indeed, throughout 2021 and 2022, the community enacted over 70 HIPs, signaling active engagement in governance.

c. **However, the PoH DAO lacked two essential components that could have prevented or mitigated the community's eventual conflicts, which proved to be irreconcilable.**

> **i.** In "Governance as Conflict," Eric Alston (2022) emphasizes the importance of implementing mechanisms within a DAO to address conflicts, highlighting that DAOs, as vehicles of collective action among diverse groups, face inherent challenges. The costs associated with collective action necessitate a resilient organizational design for DAOs, which should encompass a consensus on the animating purpose driving the organization, as well as strategies for mitigating and resolving potential future disputes. The purpose of an organization greatly defines its optimal governance structure. Still, disagreements in DAOs might arise from divergent preferences in pursuing the animating purpose, or from violations of established norms by members, including those in decision-making positions. Given the inherent nature of collective action, which includes delegating decision-making authority to some extent, having strategies both to prevent conflicts (ex-ante measures) and to resolve them when they occur (ex-post measures) is essential (Alston 2022).

> **ii.** The PoH DAO failed to agree on a clear animating purpose from the outset, which gradually led to the emergence of two significant points of tension over time.

>> **a)** On one side, there was significant debate regarding the *direction of governance for the PoH registry*. The crux of this disagreement centered on the content and execution of the rules designed to prevent fraudulent entries of "Sybils." For some, these rules were required to maintain the PoH registry's integrity. To others, they were unfairly penalizing honest mistakes. Penalization, which involved keeping the user's security deposit, was especially costly for those coming from less developed countries. Another aspect under discussion was whether the PoH registry's primary objective was to integrate with other DApps or to focus on strengthening its initial integration, the Universal Basic Income (UBI) smart contract. The absence of a formal consensus led to increasing polarization within the community. A notable post on the PoH DAO governance forum in July 2022 articulated this division: "Parts of the community [are] focusing on UBI, others on DApp integrations, and others on the security of the registry. I believe that a statement of principles from the [Mission Board] would set a precedent of reconciliation and direction for the future. What do we stand for? What do we want as a protocol? What does success look like?" This call for clarity highlighted the deepening divide and the urgent need for a unifying statement of principles to guide the community's efforts and reconcile differing priorities.

b) On the other hand, there was significant tension surrounding t*he governance of the PoH DAO itself*. A key area of contention emerged over the nature and pace of decentralization from the founding team to the community. Although the community members were ostensibly granted voting rights on governance matters, the specifics of these powers were not clearly defined. There was ambiguity regarding whether the community could debate or alter certain technical aspects of the PoH registry DApp — such as changing the arbitrator for the PoH registry — or if some tasks should remain with the founding team or be assigned to specially qualified individuals. This ambiguity extended to the ownership and management rights over the PoH DAO's communication channels, including Telegram groups, and to the persons responsible for implementing the community's decisions on-chain. This lack of clarity led to debates over who should have the authority to make certain decisions and how these decisions should be executed, reflecting deeper questions about the extent of decentralization and community involvement in the DAO's operations.

iii. Preventative, or ex-ante, mechanisms for avoiding disputes could involve establishing a detailed project roadmap, outlining elements such as the project's vision and objectives, key milestones, timelines, and essential deliverables. While decentralizing decision-making power from the founding team to the community was set up to be "progressive," the DAO did not propose any clear and transparent mechanisms for addressing abuses of power potentially conducted by the partnering organizations. This proactive clarity could have aligned community expectations and efforts, thereby minimizing conflict potential.

d. **The incomplete governance design at the launch not only nurtured division but also led to the creation of implicit power structures, a phenomenon akin to the "tyranny of structurelessness."**

i. The idea of the "tyranny of structurelessness" was introduced in a speech (1970) and subsequent essay (1972) by Jo Freeman, who identified some of the pitfalls experienced by the feminist movement aiming to resist the overstructuredness and institutional hierarchies of traditional society. This concept highlights how the absence of formal structures can lead to unacknowledged hierarchies and concentrations of power, as some individuals or groups may assume control or influence by default. This situation can undermine the principles of equity and inclusivity, as decisions tend to be made by those who navigate the informal networks most effectively, rather than through a transparent and democratic process. According to Freeman, structurelessness can work only if the group of people it applies is relatively small and homogenous, strongly aligned on a specific task at hand, communicates frequently, and has a low level of specialized skills requirements. This concept is particularly powerful in the context of Internet communities (Schneider 2021) and blockchain-based systems (Goldberg 2023). In particular, DAOs attempt to decentralize governance by empowering community ownership and participation. When governance structures are not explicitly designed ex-ante, implicit structures inevitably emerge, which may erode DAOs' decentralizing spirit by empowering certain groups more than others, including founding teams or token holders.

ii. Initially, the PoH DAO lacked the characteristics Freeman identified as necessary for a structureless organization to function effectively:

a) The community grew rapidly and became quite heterogeneous. An average of 744 humans per month became a part of the PoH registry. At the same time, throughout 2021, community members created more than ten Telegram groups in different languages to deliberate on topics concerning the PoH registry, the UBI token, and the PoH DAO.

b) Given the size and diversity of the community as a whole, frequent and constructive communication amongst everyone became difficult very fast. Considering that the PoH registry, at its core, was a sophisticated technical project, the implementation of many tasks and decisions passed by the PoH DAO relied on a small subgroup with highly specialized technical abilities.

iii. As a result, implicit power structures emerged in the PoH DAO, which were hard to undo later and encouraged a lot of skepticism among different parts of the community. Notably, the PoH DAO's relative structurelessness consolidated the influence of the partnering organizations, Kleros Cooperative and Democracy Earth Foundation, and their leaders, Clément Lesaege and Santiago Siri. For example, attempts to institute more explicit governance processes, such as recruiting "workers for the DAO" (HIP 2 and HIP 3), were never implemented. Efforts to create governance bodies such as the Mission Board (HIP 7) assigned Kleros Cooperative and DEF representatives as interim members. The differing opinions of these organizations and their leading figures turned into points of reference for the community at large and contributed to fragmentation.

1.b. Two Partnering Organizations with Colliding Expectations

> Key takeaway: Despite initially collaborating for mutual benefit, the two organizations involved in the launch of PoH and UBI (Kleros Cooperative and Democracy Earth Foundation) had vastly different, and at times colliding, expectations for the PoH project as a whole. These expectations partially derived from the diverse backgrounds and visions each organization pursued independently.

Another factor we identified that contributed to the PoH DAO governance crisis was linked to the two organizations involved in launching the PoH and UBI projects: Kleros Cooperative and Democracy Earth Foundation (DEF). While initially perceiving the collaboration as mutually beneficial, Kleros Cooperative's CTO, Clément Lesaege, and DEF's founder, Santiago Siri, soon started disagreeing over the future direction of the PoH registry and governance approaches for the PoH DAO. Their disagreement was partly grounded in the different nature of their organizations. The colliding expectations of Clément Lesaege and Santiago Siri, as well as between other Kleros community members and DEF affiliates, soon became points of reference for other members of the PoH DAO and laid the ground for the future polarization of the community.

a. **The PoH and UBI projects were launched by two collaborating organizations.** The Kleros Cooperative was responsible for developing the PoH registry smart contract and web application, whereas the UBI smart contract resulted from a joint effort between DEF and Kleros Cooperative, bringing to life an idea initially proposed by DEF. Both organizations had been actively involved in the discussions around the PoH project and its promotion since its launch in March 2021. Kleros Cooperative and DEF had been devoted to "blockchain technology for social good," meaning its

application beyond financial transactions, to areas such as dispute resolution, decision-making, and wealth redistribution. According to Clément Lesaege's statement (Lesaege 2022), Kleros Cooperative developed the concept of a Sybil-resistant decentralized registry of humans based on webs of trust, reverse Turing tests, and decentralized dispute resolution. The idea was inspired by Ethereum co-founder Vitalik Buterin's posts about "hard problems in cryptocurrency" (Buterin 2014). DEF's 2017 white paper presented the idea of the distribution of tokens in a Universal Basic Income (UBI) fashion to verified human identities validated through a decentralized "Proof of Identity" protocol (Democracy Earth 2017). In 2019, DEF founder Santiago Siri joined the Proof of Humanity Telegram group created by the Kleros Cooperative, where enthusiasts exchanged ideas about digital identity and a Sybil-resistant identity registry. A paper published in 2020 co-authored by Santiago Siri (Siddarth et. al 2020) mentioned Kleros' Proof of Humanity concept among other examples of Sybil-resistant protocols. Ultimately, Kleros Cooperative and DEF decided to collaborate and launch the Proof of Humanity registry with UBI as the registry's first use case and incentive mechanism. According to the [PoH](#) and [UBI](#) GitHub repositories, the Kleros Cooperative's team, under the leadership of the CTO Clément Lesaege, was responsible for designing and engineering the PoH smart contract. The UBI smart contract was developed under the leadership of DEF founder Santiago Siri and with assistance from some Kleros Cooperative's team members. In March 2021, the [PoH web app](#) went live, with both Kleros and DEF being featured on the home page as "trusted parties" and [Clément Lesaege](#) and [Santiago Siri](#) posting about the project on their Twitter accounts. The PoH DAO was announced a month later (James 2021), giving the community of registered users control of the policy of the PoH registry and the UBI token issuance. This arrangement continued until July 2021, when a separate UBI DAO was formed ([HIP 22](#)).
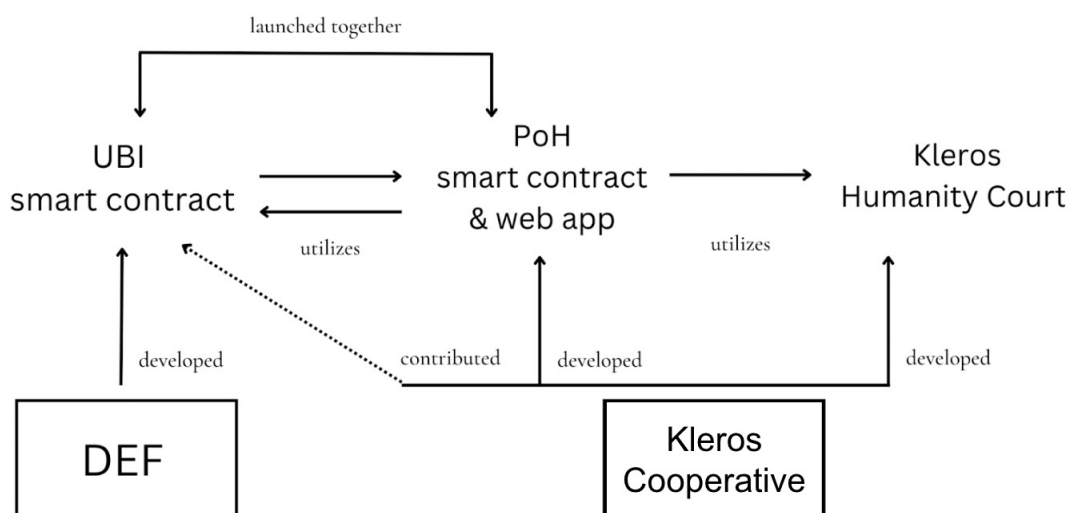
Figure 1. Institutional ecosystem behind the launch of the PoH and UBI projects

b. **The initial collaboration was based on a perceived mutual benefit.** According to our interviewees, launching the UBI smart contract as the PoH registry's first use case was perceived as mutually beneficial for the project to gain traction and be adopted. The PoH registry used UBI as an economic incentive for users to join, and in return, UBI benefited from the Sybil-resistant mechanisms of the registry to ensure its fair distribution among "unique and singular" individuals. While the Kleros Cooperative team appears to have provided most of the engineering and soft-

ware development resources, DEF founder Santiago helped to onboard many users to the PoH registry, increasing its popularity.

c. **Yet, the nature, values, and trajectories of the organizations were not entirely similar.** While Kleros Cooperative and DEF were dedicated to working in the realm of "blockchain for social good" and applying blockchain technology beyond financial transactions, the organizations otherwise exhibited relatively different profiles.

> **i. Kleros** is an open source online dispute resolution protocol which uses blockchain and crowdsourcing to adjudicate disputes. According to its [website](), the work on the project began in 2017 by French co-founder and CTO [Clément Lesaege]() and Argentine co-founder and CEO [Federico Ast](). Described as an open-source "justice protocol," the project's vision is to democratize access to justice in the digital world through a decentralized court system for the Internet Age. The project is managed by the Coopérative Kleros (Société Coopérative d'Intérêt Collectif (SCIC)), incorporated in France—a commercial company designed with a social purpose and collective interest, where anyone can become a stakeholder by submitting an [application form](). As of November 2022, the Kleros Cooperative team had over 20 people worldwide with different skill sets. The team is responsible for developing the [Kleros Court system](), which works as a decentralized third party to arbitrate disputes in every kind of contract, where every step of the arbitration process (securing evidence, selecting jurors, etc.) is fully automated. Beyond the Kleros Court, the broader ecosystem of applications developed by the Kleros Cooperative includes other products such as: [Escrow, Curate, Linguo, Dispute Resolver, and, of course, Proof of Humanity]().

> **ii. DEF** is an NGO historically rooted in political activism in Argentina and powered by the work of many volunteers, championing the idea of decentralized digital democracy and wealth redistribution. The DEF's [website]() indicates that it was founded in 2015 by Argentine "code" leader [Santiago Siri](), Italian "voice" leader [Pia Mancini](), and American "finance" leader [Herb Stephens](). According to its white paper (Democracy Earth 2017), DEF is an organization building free, open-source software for incorruptible blockchain-based decision-making for organizations of all kinds and sizes. The project's vision is to give everyone, everywhere, the tools to contribute to a borderless democracy. DEF is a 501(c)3 not-for-profit foundation in California, United States, and has been backed by Silicon Valley [Y Combinator]() and [Fast Forward]() accelerators. Beyond its legal personhood, DEF [identified]() itself as a "movement" that originated in Argentina when [DemocracyOS]() founders Santiago Siri and Pia Mancini started the NET political party ([Partido de la Red]()). By 2018, DEF comprised approximately 10 developers and "hacktivists" from different parts of the world and a vast network of volunteers, including DEF's [Ambassadors](). Since its inception, DEF has been involved in at least four digital decision-making [pilots]() worldwide, engaging different stakeholders such as civil society organizations, a blockchain startup, and elected members of parliament in the State of Colorado, United States (Cossar & Berman 2020). After the launch of the UBI smart contract, DEF developed a [DApp]() for users to keep ETH or DAI in their Humanitarian Smart Contract Vaults and help burn UBI tokens using yield.

d. **Over time, the leaders and the members of the two organizations began disagreeing, and their views were adopted by other PoH DAO members.** During our interviews, many PoH DAO members reflected on how Clément Lesaege and Santiago Siri became, either willingly

or inadvertently, points of reference for two factions within the community: the Kleros Cooperative or Kleros side and the DEF or UBI side. Both sides seemed to agree that the PoH DAO was a unique experiment on democratic decision-making. Yet, members affiliated with the DEF or UBI side considered the need for the community to actively develop governance rules as a virtuous and positive aspect. In contrast, some members of the Kleros community side saw this as a hindrance to other technical priorities, such as integrating the PoH registry with use cases other than UBI. These factions also disagreed about the rules and policies of the PoH registry, with Kleros Cooperative affiliated members mostly defending the existing rules as necessary for maintaining the registry's integrity and the DEF or UBI side considering them unnecessarily harsh and prone to punishing users' honest mistakes.

2. Citizenship and The Demos

Modern democracies, structured around nation-states, are characterized by the presence of a population and citizens—individuals endowed with the rights and obligations to participate in governance. These citizens are also known as the demos. In the context of the PoH DAO, examining the characteristics of its demos is crucial, as these attributes may have contributed to the community's fragmentation over time. This section will delve into the nuances of the PoH DAO's demos, exploring how their diversity, engagement levels, and varying perspectives on governance and the project's direction have influenced the evolving dynamics within the community.

2.a. Heterogeneous Member Backgrounds and Interests

> Key takeaway: PoH DAO members actively participating in deliberations came from varied backgrounds and had very different interests in the project, which consolidated into polarized governance views.

A significant factor in the PoH DAO governance crisis was linked to the community members' heterogeneous backgrounds and interests. This issue became more and more apparent as the community grew in size. While the rules for becoming a member of the PoH registry were clear, participation in the PoH DAO was not subject to strictly defined membership rules. Voting on Snapshot was only available for "unique and singular humans" registered in the PoH registry. Yet, participation in other governance tools and platforms used for deliberation was *de facto* open to anyone interested in the project (e.g. Telegram chats). This open participation policy attracted a wide range of individuals to the project, each with very different interests in the project to perspectives on the PoH DAO governance and the management of the PoH registry. This melting pot of backgrounds and interests, combined with the conflicting visions articulated by leaders from Kleros community and DEF/UBI and the initial inadequacies in governance structure, led to an increasing polarization of viewpoints within the community.

   a. **Membership rules in the PoH DAO were not clear or strict, and deliberation was de *facto* open to anyone interested.** The rules for joining the PoH registry were clear, explicit, and publicized in the [web DApp](#) and multiple Kleros blog posts (Ragosa & Ast 2021). One had to be a 'human' and submit personal information and biometric data in video and picture formats. However, the rules for joining the PoH DAO were less clearly and strictly defined. In theory, the PoH registry members were *also* PoH DAO members. They are the only ones allowed to vote on governance issues on the [PoH Snapshot page](#) under a 1-person-1-vote system. Yet, in practice,

participation in deliberation on governance issues across different tools and platforms is open to anyone interested. For instance, registration in the PoH registry was not a prerequisite for posting on the [governance forum](#) or joining the open PoH DAO Telegram groups. In fact, our interviewees stressed that only a tiny percentage of humans registered in the PoH registry participate in the PoH DAO governance: "So many people registered. Sadly, they don't get involved."

b. The PoH DAO active members came from different backgrounds and were interested in very different aspects of the project.

    i. There were two important differences in backgrounds among the PoH DAO active participants:

        a) Some had high-level technical skills, while others had no prior experience with the blockchain or Web3 industry.

        b) A critical mass of the most active PoH DAO members spoke only Spanish and identified as Argentinean or from a neighboring Latin American country. The significance of this demographic group was reflected, for example, in the PoH DAO "official communications channels" ([HIP 50](#)), which were in English and Spanish, and in the fact that humans could pronounce the phrase in the video proof in Spanish ([HIP 42](#)).

    ii. The motivations for participating in the PoH DAO varied, and included at least the following ones:

        a) Many members were particularly focused on discussions concerning the UBI token exchange and its price, as they reportedly joined the PoH registry primarily to accumulate UBI and secure a new source of income.

        b) Others were drawn to the project with the aim of understanding and contributing to the technical development of the Sybil-resistant decentralized registry of humans, the economics of the UBI token, or both.

        c) Another community faction reports having been inspired to join by Santiago Siri's background as the founder of the Argentine political "Net Party" and his ideals about expanding digital democracy.

        d) Some others joined due to their professional or internship experiences with the Kleros Cooperative, the organization behind the founding of the PoH project.

c. Rather than achieving a harmonious diversity, the varied backgrounds and interests of the members coalesced into polarized viewpoints. Key disagreements among the community were often approached with a "convex" mindset, indicating a tendency towards extreme positions rather than seeking middle ground or compromise.

2.b. Division of the Minds and Perceptions about Factions

> Key takeaway: Community members perceived the PoH DAO as a split between two opposing factions and this perception was openly expressed on various platforms and forums. This public portrayal of the community as deeply polarized ultimately became a self-fulfilling prophecy, reinforcing perceptions, attitudes, and actions of mistrust toward the "other" side.

Another factor that furthered the PoH DAO governance crisis concerned the perceptions about the existing warring factions. Firstly, community members perceived the DAO as a split between two opposing factions and expressed it publicly on various platforms and forums. Our observations led us to believe that the public perception of the community as deeply polarized ultimately became a self-fulfilling prophecy, reinforcing attitudes and actions of mistrust towards the opposing faction, further exacerbating polarization. Secondly, the majority of the PoH DAO community seemed to have agreed on the existence of two factions. Yet, members disagreed on every other aspect of the perceived polarization. Finally, the more conciliatory and neutral voices (those who did not publicly identify with one or another faction) did not dominate the political debate, since "being neutral" was considered "untrustworthy" by the polarized majority.

a. **Community members perceived the PoH DAO as a split between two opposing factions and expressed it publicly on platforms and forums, which led to further polarization and confrontational attitudes and actions.** This dynamic exemplifies the concept of "self-fulfilling misperceptions of public polarization," where a community is depicted in various media outlets as being excessively divided. This portrayal can, in turn, amplify attitudes and behaviors of dislike and mistrust towards the "other" group. (Ahler 2014). Despite the existence of genuine disagreements within the community, the narrative of an "us versus them" on PoH DAO Telegram groups, Twitter threads, and the governance forum ultimately increased the antagonism.

b. **Community members agreed on the existence of two competing factions but disagreed on all other aspects of the perceived polarization.** The disagreement manifested itself regarding:

    i. Belonging to a faction:

        a) Most members actively involved in the governance of the PoH DAO identified with one or another faction, at least some point in time.

        b) Yet, a relative minority of those actively involved in governance identified themselves as "neutral" or not aligning with either side.

    ii. Defining the factions descriptively:

        a) Some believed the partnering organizations played a significant role in shaping two distinctive factions: "Kleros vs. UBI/Democracy Earth," and "Clément Lesaege vs. Santiago Siri." Within this group, some perceived one clear faction against a less organized opposing side—"Kleros vs. Anti-Kleros," "Kleros vs. The Rest." Others argued that as mistrust grew towards the leaders of each partnering organization, Clement and Santiago, cohesion within each faction started to break down.

b) Other members thought the factions were not correlated to the partnering organizations but to different expectations about the PoH project:

> **i.** Especially members affiliated with the Kleros Cooperative, expressed that the factions disagreed about the priorities for the PoH project (e.g., "Security and Sybil-Resistance vs. Inclusion and UBI," "Sybil-resistance vs. Democratic Excellence," "Economic and Technical Security vs. Community Ownership."
>
> **ii.** Members affiliated with DEF/UBI or simply self-perceived as "anti-Kleros" rejected that distinction. For them, the divide was caused by approaches to the PoH registry, where the Kleros Cooperative side would defend very harsh rules for accepting submitted profiles into the registry, penalizing honest mistakes made by users and not having a significant impact in deterring real Sybils such as duplicates or bots.

c) Another group argued the divide was caused by the members' backgrounds:

> **i.** Their technical expertise: "Technical People vs. Non-Technical People"
>
> **ii.** Their nationality: "English Speakers vs. Spanish Speakers," "Latinamericans vs. Non-Latinamerican," and "Argentinians vs. Non-Argentinians"
>
> **iii.** Their interests in the project: "People who joined to get free money vs. People who joined for reasons other than the free money."

iii. Defining the factions normatively:

> **a)** Most neutral members thought each side had an equal moral standing and something valid to say.
>
> **b)** Yet, most polarized members regarded one side as the morally superior or factually correct one: "More robotic side vs. More human," "Stupid vs. Non-stupid," "Malicious vs. Non-malicious," "Pragmatists vs. Idealists," "Focuses on facts vs. Focuses on feelings," "Dictatorial and anti-democratic vs. Defending democratic views and ideals," "Values creating a successful protocol vs. Values power."

iv. Differing views on the ability to reconcile factions:

> **a)** A minority of mostly neutrals thought the factions' views were not irreconcilable. In fact, they contended that all the parties needed each other for the project to succeed. They believed the problem was not that each faction held irreconcilable views but that they attacked each other, engaging in continuous hostility, and failing to communicate their views properly and work together.
>
> **b)** Most polarized members thought the factions' views were irreconcilable, either because they simply looked at things differently or because the other faction was malicious and held factually wrong views.

v. Members' views on how the PoH DAO governance crisis should have been addressed:

a) Some members who self-identified with the Kleros community side thought that encouraging individuals from other geographic areas to join and participate in governance could break the two-faction perceived division.

b) Other members, also self-identified with the Kleros community side, argued that the solution was to secure more integrations for the PoH registry other than UBI, which would result in a wider variety of expectations about the project.

c) Another group, mostly anti-Kleros leaning, advocated for reducing Kleros Cooperative's influence on the PoH DAO governance, including by removing some members from the Mission Board or from the moderation and ownership of the most popular PoH DAO Telegram groups.

d) A Kleros Cooperative affiliated member proposed creating sub-DAOs within the main PoH DAO to focus on different governance tasks such as dealing with integrations versus dealing with community management.

e) Finally, community members agreed that the desired path was forking the PoH DAO. A decision in favor of a [“peaceful fork” was adopted on 6 November 2022 with 372 votes (78.65%) against 101 votes (21.35%).](#)

c. **The more conciliatory and neutral voices did not dominate the political debate since "being neutral" was perceived as untrustworthy.** Not all members of the PoH DAO perceived themselves as part of one or another faction, nor did they think the factions' views were irreconcilable. Yet, their views were not welcomed by the bulk of the active community and progressively lost strength: "When these problems between the two sides started to arise, I tried to take a middle ground, but the community took it as an attack on each side." As a result, individuals who attempted to bridge the gap or offer compromise found themselves marginalized unless they aligned unequivocally with one faction or the other, contributing to further community polarization.

3. Political Deliberation

All modern democracies aim to promote the citizens' participation in governance, including by running for office, voting for representatives, and engaging in political deliberation. To ensure citizens' participation, modern democracies install proper governance mechanisms and foster a culture of civic engagement. In this section, we will analyze how political deliberation took place within the PoH DAO, and which aspects of it may have reinforced the irreconcilable divide instead of a diverse and peaceful coexistence.

3.a. Uncompromising or "Convex" Deliberation Mindset

> Key takeaway: Many issues under debate about the PoH registry and the PoH DAO were framed as irreconcilable tradeoffs and addressed with a confrontational and uncompromising mentality. This prevented factions from finding common ground.

Another factor contributing to the PoH DAO governance crisis involved how disagreements among community members were framed. As the community expanded, the management of the PoH registry and the governance of the PoH DAO increasingly became characterized as dilemmas or zero-sum choices between two conflicting and exclusive solutions. One of our interviewees pointed out that this framing stemmed from a "convex" decision-making mentality, more confrontational and uncompromising (Buterin 2022). Below are some of the disagreements over which the PoH DAO community began to split into two relatively defined sides.

a. **Several conversations revolved around the PoH registry.** While there have been many, below are some of the most salient points of disagreement:

i. The PoH registry's profile submission policy: The [PoH web app](#) includes a webpage specifying the steps and requirements to join the PoH registry.

a) Some members of the PoH DAO community advocated for making the rules more "inclusive". To make the registry available for lower-income people, some discussed denominating the [security deposit](#) in a variable ETH value or a fixed value of a less volatile cryptocurrency. A proposal ([HIP 41](#)) was adopted allowing users to verbally confirm their Ethereum public address through video submission, making registration accessible for people with movement or visual impairment. Another proposal ([HIP 42](#)) was adopted for individuals to say the phrase required in the video submission in Spanish. The community also discussed the concept of [family members' accounts](#), whether these were desirable, and how these should be managed.

b) Members, mostly affiliated with the Kleros Cooperative side, staunchly opposed some or most of these initiatives arguing that they could "threaten the Sybil-resistance of the registry and make it less secure."

ii. The PoH registry's challenge policy: The PoH web app also stipulated procedures to challenge profiles submitted to the PoH registry.

a) Some PoH DAO members contended that the challenge policy was not fair nor compassionate enough towards submitters making "honest mistakes." A proposal ([HIP 8](#)) accepted 352 pixels as the minimum dimension in video submissions. The motivation for the proposal was that many submitters were being challenged for inadvertently uploading videos smaller than the required 360 pixels, a consequence of exporting them from WhatsApp. Another example was an adopted proposal ([HIP 27](#)) to accept submissions with one character mistake in the Ethereum address displayed in the video proof.

b) While these proposals received comparatively more support than the ones mentioned above, some of the same members antagonized them, arguing that they "would make the registry less secure."

iii. Sybil attacks against the PoH registry: Sybil attacks refer to creating and utilizing "fake virtual personas" to undermine or exert more influence in a given system. These attacks are particularly severe when launched on peer-to-peer identity networks or DApps. The PoH registry has been said to suffer from ["profile farming" and "puppeteering,"](#) meaning malicious actors effectively controlled the account of one or more registered humans to, for

example, accrue more UBI or gain more voting power. Most community members agreed that these Sybils were harmful and undesirable, but they disagreed on the best way to address them.

a) For some, usually self-identified with the Kleros Cooperative side, the solution was to change the PoH registry profile submission rules and explicitly forbid Sybils ([HIP 55](#)) ([HIP 62](#)).

b) For others, self-identified with the DEF/UBI or anti-Kleros side, these initiatives were seen as inadvertently penalizing non-malicious actors and potentially leading to a state of hyper-litigiousness.

iv. Dishonest behavior in the PoH registry: "Dishonest behavior" in the PoH registry was not necessarily a Sybil attack but a situation where a legitimate or "real" virtual persona behaved contrary to what is expected from their role for their own benefit. Any registered human in the PoH registry could vouch for submitted profiles. Vouching was a benevolent act where one claimed to know a submitter was a single and unique human. Yet, the PoH registry was predated with ["vouchchallengers,"](#) where registered humans would vouch for a submitted profile that contained visible mistakes in the submission just to challenge it right after In the PoH registry, there was an economic incentive to challenge profiles, as challengers gained the submitters' deposit if they won the challenge. Once again, community members agreed that vouchallengers were undesirable. Yet, the community [didn't agree](#) on a way to prevent or penalize such dishonest behavior.

a) Some members identified with the anti-Kleros side argued for strong measures against vouchchallengers, including banning removed vouchallengers from re-submitting their profiles to the registry.

b) The position of some Kleros community members was not cohesive, but they were mostly in line with less harsh measures against vouchallengers. Anti-Kleros community members saw the other faction's behavior as a result of the inherent benefits to the Kleros Cooperative of having profiles being challenged and adjudicated by one of their courts.

v. The PoH registry's use cases: A [document](#) sketching the initial PoH project proof of concept and posts on Kleros' blog page (Ragosa 2021) mentioned that the PoH registry had several potential applications. But, over time, community members disagreed on the importance of working towards newer integrations other than UBI. A [poll](#) conducted in October 2022 showed that the majority of the 105 members who participated in the poll thought that integrating the PoH registry with other projects was a priority. However, our interviews revealed that members who had joined because of the economic incentive thought that focusing on the UBI integration was the most critical priority. Other members, mainly Kleros Cooperative affiliated, contended that the UBI token had no utility and was merely "free money" benefiting earlycomers. They held that the real value was promoting the integration of the PoH registry with different DApps for various use cases. According to them, the integrations were regrettably going way "slower than they thought."

b. Many other conversations involved the PoH DAO governance. Below are some of the most salient points of disagreement:

i. The "size of the state": One point of contention was the extent and nature of governance decisions entrusted to the PoH DAO. The announcement of the DAO outlined the various topics that the community could deliberate and vote upon, encompassing issues related to the PoH DApp and the UBI contract before the PoH DAO and the UBI DAO evolved into distinct entities (James 2021). In practice, PoH DAO members debated and voted on various issues. These ranged from "the rule on how to make rules" or how HIPs should be adopted, the structure and functioning of the governance bodies, and the management of the PoH registry, to the ultimate decision to fork.

> **a)** Akin to proponents of a "bigger state," some DAO members thought the strongest virtue of the PoH project was the *extensive, open, and continuous democratic deliberation dynamic.*

> **b)** Contrarily, and similar to adherents of a "smaller state" in traditional politics, some others preferred *little to no governance at all.* These members considered that having a DAO deciding on many aspects of the PoH project was a hindrance instead of a benefit, mainly because it slowed down the patching and refactoring of the PoH registry software.

ii. The "governing bodies and officials": While the PoH DAO was supposed to decide about the project management, in reality, many decision-making positions were held by members of the founding organization, the Kleros Cooperative. According to a comment made by Clément Leseage in the governance forum (HIP 49), Proof of Humanity is maintained by the Kleros Cooperative and involves paid team in the PoH project including software developers working on the smart contract and web applications, a manager working on integrations, moderators maintaining PoH Telegram channels, and Kleros' co-founders helping other projects integrate with PoH. Two of the four members of the interim Mission Board were also the Kleros' co-founders. Clément Leseage was also re-elected to the Mission Board in May 2022. Additionally, DEF members also had influence over the PoH DAO decision-making process. Some interviewees alleged that UBI founder, Santiago Siri, was the largest holder of UBI tokens. Santiago was also a member of the interim Mission Board and was re-elected in May 2022, just like Clément Leseage.

> **a)** For some, having members of the partnering organizations *de facto* occupying so many decision-making positions in the DAO was "illegitimate and anti-democratic" and posed a "severe conflict of interests."

> **b)** For others, mostly Kleros-leaning, this feature was a positive trait that implied a synergy of interests. According to them, members of the PoH founding organization wanted the project to succeed and, thus, would make decisions and manage it with that idea in mind.

iii. The state "agora": Following HIP 50, the officialization of the PoH platforms and tools for deliberation, such as Telegram groups, was also subject to debate. The proposal showed disagreement on aspects about the ownership and nature of the "agora", or the public space to deliberate about governance issues.

a) Some PoH DAO community members considered the ownership of deliberation tools and platforms by the Kleros Cooperative to be illegitimate, while most Kleros community members did not see it as problematic.

b) Some PoH DAO community members considered that the official deliberation spaces had to be clearly defined to prevent future liabilities in the eyes of regulators, including potential accusations of commission of illegal activities. For others, having "official" chat groups was inherently coercive and against the principle of self-organization. According to them, the PoH DAO had to have as many groups and chats as it wished while adopting clear codes of conduct.

c. Finally, one particular debate revolved around an issue affecting both the PoH registry and the PoH DAO governance:

i. The PoH registry's dispute resolution system: In June 2022, a proposal was submitted to "Change the Arbitrator" of the PoH registry ([HIP 49)](#). The PoH registry utilized the [Kleros Humanity Court](#) to resolve disputes arising from challenges to submitted profiles pending registration. The reasons for challenging a profile included incorrect submission, being a duplicate, being a non-human (a bot), or being a deceased person.

a) Community members favoring "changing the arbitrator" were mostly at odds with the Kleros side. This faction agreed on two points:

i. Firstly, from their perspective, the design of Kleros' dispute resolution system was far from perfect. It abided by "legal positivism," where disputes were resolved not based on moral principles but on what was explicitly established in positive norms or the smart contract rules. Additionally, the system was money-driven, with economic incentives leading to "hyper-litigation."

ii. Secondly, members of the community considered that utilizing Kleros as a dispute resolution service provider hindered the autonomy of the DAO and gave Kleros' jurors and Kleros Cooperative staff incentives and power to intervene in the PoH DAO governance to maintain the status quo. This concern was closely linked to their dissatisfaction and sense of inability to make changes to the established Kleros Court model controlled by the Kleros Cooperative, resulting in a heightened level of conflict within the community.

b) Community members against changing the arbitrator mostly self-identified with the Kleros community side. They considered the Kleros' dispute resolution system to work as intended and not exhibit any fundamental flaws. They also believed that Kleros jurors and Kleros Cooperative staff participating in the PoH DAO were positive traits contributing to the success of the PoH DAO. They believed that utilizing Kleros' dispute resolution system did not lead to a "governance gridlock," but reinforced a principle of separation of powers where the PoH DAO legislates, and Kleros adjudicates, and fair and impartial justice since decisions were based on explicit rules instead of political factors.

3.b. Counter-Productive Deliberation Practices and Culture

> Key takeaway: The deliberation practices and culture within the PoH DAO exhibited many problematic characteristics that impeded a constructive deliberation environment.

Another factor we analyzed was the deliberation practices and culture within the PoH DAO. Deliberation is a core component of any democratic decision-making process. In the case of blockchain-based DAOs, it may involve the submission and public discussion of proposals on a wide array of issues: from the DAO's mission and vision, the allocation of DAO-owned funds, the hiring of personnel, the election of governance roles and governance bodies, to the design of governance mechanisms. Likewise, the organizational culture within a DAO refers to the shared values and beliefs that influence how members behave and relate to one another. In this respect, the PoH DAO exhibited many problematic characteristics that impeded a constructive deliberation environment.

a. **The excessive fragmentation of the deliberation space led to greater confirmation bias and lower participation.** When the spaces for community deliberation break down, it is easier for them to turn into fragmented echo chambers where like-minded individuals reinforce their existing beliefs. In essence, the absence of a unified deliberation space facilitates the appearance of deliberation groups not necessarily based on shared discussion topics but on confirmation bias (Brugnoli et al. 2019). Moreover, excessive fragmentation of communication spaces may not increase but rather lower community engagement. Community members may become confused about which spaces they should be participating in and, thus, may refrain from participating at all. Public deliberation in the PoH DAO community seemed to have occurred in very fragmented environments, including many communication channels and groups within them: a governance forum website, a Discord server, several Telegram groups, and a Reddit page. Participation in groups in some of these communication platforms, especially Telegram, was "open" to members with similar interests and opinions and progressively "restricted" to dissident voices through the banning of accounts. This environment seems to have furthered the already-existing polarization and hindered the participation of "newcomers" who may have struggled to discern which governance tool or platform they should use for meaningful engagement.

b. **The "implicit feudalism" in deliberation platforms was left rather unchecked.** To conduct deliberation, online communities such as DAOs necessarily rely on existing digital communications platforms. These platforms give an outstanding amount of power to "administrators" and "moderators," a phenomenon usually referred to as "implicit feudalism" (Schneider 2021). The nature of the spaces used by online communities for deliberation necessarily introduces new forms of hierarchies which themselves require democratic legitimation. Yet, these spaces live entirely outside the blockchain-enabled DAO infrastructure. As such, it is extremely important to define and transparently enforce rules on the ownership of the governance tools and platforms, the election of administrators and moderators, and the codes of conduct for deliberation. From May 2021, PoH DAO members introduced several proposals to regulate and legitimize roles in communication channels, such as "moderator" and "admin," and define a code of conduct for communication practices. These initiatives include HIP 16, HIP 18 (which was submitted but not adopted), HIP 19, HIP 50, and HIP 71 (which was adopted in replacement of HIP-16). Despite these efforts, ownership, and moderation of governance tools, groups, and platforms continued to be

contentious issues. Firstly, the HIPs mentioned before did not address the issue of "ownership" of the communication channels. This vacuum led to the crisis of June 2022, when members of the Kleros Cooperative informed other community members that they "owned" the "original" PoH Telegram groups. This statement was perceived by a large part of the PoH DAO as "illegitimate," stirring conflict that culminated with the adoption of HIP 50. Some PoH DAO members regarded the "official" Telegram groups created by HIP 50 as "undesirable" or even "coercive." Secondly, moderation had been associated with instances of abuse of power. Interviewees argued that the binding HIPs on moderation and codes of conduct had not been fully or transparently enforced. Members of both factions continuously accused each other of moderating and administrating Telegram groups illegitimately, including by silencing and removing members without a warning or without a justified reason, thus limiting "free speech" and "silencing the opposition." The lack of an impartial PoH DAO body to enforce or evaluate the enforcement of deliberation moderation rules increased the recurrence of these accusations.

c. **Language barriers lead to miscommunication.** Multilingualism, or a community integrated by native speakers of many languages (Clyne 2017), while potentially advantageous, can become a source of weakness if not effectively managed within a community (Gazzola et al. 2020). When a DAO does not adopt an explicit language policy or tools to integrate language minorities, multilingualism can hinder effective communication and lead to misunderstandings, confusion, and tension among community members (Annamalai 2003). Within the PoH DAO, members speak diverse languages, with a significant portion being native Spanish speakers, alongside English, Portuguese, Russian, and Chinese speakers. However, the PoH DAO did not adopt clear rules on the language(s) used for deliberation and official communications across different platforms. Additionally, no official mechanisms were devised to integrate language minorities, such as the hiring of translators and interpreters as DAO workers. As a result, communication and deliberation were *de facto* conducted predominantly in English and Spanish, even in the absence of formally agreed-upon rules. This situation exacerbated mistrust and misunderstandings among PoH DAO members, primarily between Spanish and non-Spanish speakers, as evidenced by our interview data in section 2b.

d. **Pseudonymity turned into antisocial behavior.** Anonymity and pseudonymity in digital communications can have dual effects, fostering both "prosocial" and "antisocial" behavior, which can either facilitate or impede constructive deliberation (Kabay 1998). These qualities, which preserve privacy, can encourage participation in deliberation from individuals who may fear or prefer not to disclose their identities. However, they can also be utilized for engaging in aggressive or dishonest communications, whether spontaneously or in an organized manner. Within the PoH DAO governance tools and platforms, particularly Telegram, Discord, and the governance forum, individuals could deliberate using various usernames, including pseudonymous ones. Many interviewees aligned with different factions expressed having witnessed or suffered from systematic and widespread acts of misinformation, impersonation, trolling, doxing, personal threats, and harassment. Examples include the continuous use of discriminatory slurs and memes in Telegram groups (including groups dedicated to this purpose), the disclosure of personally identifiable information about community members in public forums, and the circulation of videos displaying fictional characters perpetrating acts of violence against particular community members. Given the pseudonymous nature of these practices and the lack of robust enforcement of codes of conduct and accountability mechanisms, we cannot confirm whether these acts of harassment

and discrimination were spontaneous or pre-arranged by specific factions or groups within them. However, these practices evidently contributed to the distrust and hostility within the community, exacerbating the governance crisis, while allowing perpetrators to hide behind the anonymity of their usernames.

e. **The community polarization fueled unreasonable deliberation.** Democratic deliberation does not necessarily require consensus; expressions of dissent and disagreement are integral to a healthy democratic environment. However, the ideal of democratic deliberation requires that individuals engage in "reasonable discussions despite disagreements" (Esterling et al. 2015). This involves expressing dissent in a respectful and constructive manner, grounded in solid and informed arguments rather than personal or subjective beliefs, with the ultimate goal of working towards a final consensus (Andersen 2022, Strickler 2017). Communities characterized by partisan polarization often experience "deliberative failures," where parties either avoid cross-party deliberation altogether or resort to attacks and provocations against opposing factions (Wolkenstein 2020). Within the PoH DAO, the most contentious HIPs, including HIP 49 or HIP 72, sparked attacks and provocations from members of opposing factions. Some PoH DAO members, both affiliated with factions and neutral observers, observed that deliberation became increasingly unreasonable over time: "They have started attacking each other and just making proposals that would just reverse whatever the other party cares most about." Even when proposals were made in good faith, they were met with skepticism, and community members noted: "Everything that is done by one faction is interpreted in the worst possible way by the other faction (...). They have no more trust in each other and don't want to cooperate. Every time someone wants to reconcile, someone else out of that faction might do something that's considered an attack, and then all attempts break down." Succumbing to extreme partisan polarization and unreasonable deliberation undermines the legitimacy of the governance process as a whole and diminishes the chances of overcoming a governance crisis.

f. **"Neutral" members succumbed to political apathy.** Political apathy is characterized by the decision or attitude to disengage or not participate in a political system, typically one that is democratic or participatory in nature (DeLuca 1995). There are many reasons for community members to develop political apathy, including "fatigue" or feeling bothered by the inconvenience of having to participate in governance decision-making too often (Augenblick & Nicholson 2016), and "alienation" resulting from lack of identification with the political system (Schwartz 1973). In the PoH DAO, while participation was qualitatively and quantitatively way higher than in other DAOs, it still remained low when compared to the number of people registered in the PoH registry. Observations gleaned from interviews conducted with individuals who self-identified as neutral, alongside discussions on the governance forum and Telegram, highlight "fatigue" and "alienation" as two primary factors contributing to non-participation in governance processes. When neutral members succumb to political apathy, the likelihood of mitigating extreme partisan polarization decreases, along with the prospects of resolving a governance crisis.

4. The Law

Modern democracies typically operate under a body of law that is binding on actions occurring within their territory or involving their nationals. This legal framework comprises primary rules, which impose duties or regulate conduct, and secondary rules, which confer powers or establish procedures for creating, amending, and repealing rules. In this section, we will examine the legislative framework of the PoH DAO and specific pieces of legislation, arguing that they were not robust enough to prevent community polarization and the ensuing governance crisis.

4.a. Incomplete and Vague Legislative Framework and Laws

> Key takeaway: While innovative, the legislative framework and legislation adopted by the PoH DAO were not robust enough to prevent or minimize polarization. Some crucial legal provisions were missing, and others contained vague excerpts that facilitated it being "weaponized" by both factions.

An additional factor that fueled the PoH DAO governance crisis was associated with its "legislative framework" and the enactments within it. By November 2022, the PoH DAO had adopted approximately 75 binding decisions. If viewed akin to a state, the majority of those HIPs, jointly with the PoH registry policies, the rulings of the Kleros Humanity Court, and the decisions of the Mission Board, constituted the DAO's "corpus iuris" or body of law—a set of enforceable rules governing the behavior within the PoH DAO's jurisdiction. This body of law comprised *primary rules* (*e.g.*, HIP 41) and *secondary rules* (*e.g.*, HIP 5). However, the legal framework and body of law were not robust enough to prevent or minimize progressive polarization. Some crucial legal provisions were missing, and others contained vague excerpts that facilitated it being "weaponized" by both factions.

a. **The PoH DAO had not adopted some crucial legal provisions lacking since the launch.** We argued that the DAO suffered from a Tyranny of Structurelessness. One of the factors that contributed to this phenomenon was the absence of governance rules at the time of the launch. While the PoH DAO didn't have a formal off-chain "constitution", or single document outlining secondary rules, some of the DAO's binding decisions could be said to have had "constitutional" character. These decisions addressed, even if indirectly, aspects of separation of powers (HIP 2, HIP 3, HIP 7, HIP 16, HIP 21, HIP 23) and the rule-making process (HIP 5). Even then, the PoH DAO didn't establish provisions on aspects that could have served as solid deterrents to the community's progressive polarization:

    i. Firstly, the shared values and ideals of the PoH DAO: Following the spirit of the preamble of a nation-state constitution, the PoH DAO should have come to an agreement on what principles it was inspired by—Was it "inclusion"? Was it "innovation"?

    ii. Secondly, the "citizens" of the DAO: The PoH DAO should have been clear on who had the right and obligation to participate in governance. Was it only humans registered in the registry? Could participating individuals who were not part of the PoH registry be equally considered "citizens"?

iii. Thirdly, the "fundamental rights and obligations" of the members of the PoH DAO: Many rights and freedoms protected in most modern democracies could have been reinterpreted and adapted to participation in the PoH DAO. The right (and obligation) to vote, the right to freedom of speech, the right to information, the right to renounce "citizenship" (to be removed from the registry, along with all metadata), the right to privacy—all of these had the potential of cultivating a healthy culture of political participation and prevent most of the disputes that arose among PoH DAO members and the "government officials."

iv. Fourthly, important aspects on "separation of powers and check-and-balances": The PoH DAO failed to stipulate clear restraints on political power exercised by decision-makers from the partnering organizations. Mechanisms known to modern democracies could have also served as inspiration by defining the bodies and officials that could undertake legislative, executive, and judicial functions, their responsibilities and the way these should have been exercised, the ways for those powers to control each other, as well as mechanisms to hold decision-makers to account if they failed to meet their responsibilities or committed abuses of power.

v. Fifthly, a process for "constitutional amendments": This point refers to the process used to amend "constitutional" rules, usually more stringent than the one stipulated for ordinary rules. Within the PoH DAO, the closest to a process of constitutional amendments was HIP 10, which stipulated that some provisions ought to remain untouched for a period of time. However, it appears that HIP 10 was never implemented in practice. Without this process, the permanence of important rules is not assured, and the body of law becomes victim to the agenda of the quantitatively larger faction at any particular time, a phenomenon called the "Tyranny of the Majority."

b. **HIP 5 contained vague language, potentially used for "lawfare" strategies.** According to HIP 5, proposals posted on the PoH DAO governance forum could pass from "phase 1: ideation" to "phase 2: specification" based solely on the discussion "garnering momentum from the community," without any formal requirements. For legal scholars, this vague legal provision would be indefinitely applicable to multiple cases, as it leaves the determination of when "momentum" is garnered open-ended. Vagueness in legal provisions can have various implications for lawmaking, interpretation, and adjudication (Keil & Poscher 2017). It can, for instance, be exploited for lawfare, which involves "using - or misusing - law as a substitute for traditional military means to achieve an operational objective" (Dunlap Jr 2008). In the polarized environment of the PoH DAO community, factions could potentially manipulate the concept of "momentum" to advance their agendas. One faction could artificially generate "momentum" or unilaterally interpret the level of interest in a proposal as sufficient to advance it from phase 1 to phase 2. Conversely, an opposing faction could undermine any perceived "momentum" or interpret the level of interest differently to prevent a proposal from progressing. In both scenarios, the provision enables proposals to advance not based on their content or the genuine needs of the PoH DAO, but rather on the intentions of competing factions to assert their influence and hinder their opponents.

5. The Government

Modern democracies are typically governed by a system in which a government or a collection of bodies and officials are tasked with making binding decisions. Primarily, Western liberal democracies adhere to a representative model, wherein the government operates based on the principles of the separation of powers and checks and balances among distinct branches: executive, legislative, and judicial. In this section, we will delve into the "government" structure of the PoH DAO and examine its potential role in exacerbating the governance crisis.

5.a. Informal and Partisan Government Bodies and Officials

> Key takeaway: The governing bodies and officials of the PoH DAO carried out functions similar to a state's three branches of power. However, their nature reflected the implicit power structures of the PoH DAO emerging after the project's launch.

Another factor that furthered the PoH DAO crisis concerned its "governing bodies and officials." After the project's launch, governing bodies inadvertently arose and exercised functions similar to a nation-state's three branches of power. However, their nature reflected the implicit power structures that emerged from the "Tyranny of Structurelessness." On top of that, the PoH DAO lacked some important bodies and officials that could have reconciled some faction-leaning views. All these factors drove the community further apart.

a. **In a democratic nation-state, power is typically divided among three branches of power.** These branches include the legislative power, responsible for making laws; the executive power, tasked with enforcing the law; and the judicial power, which interprets the law and resolves disputes. The legislative and executive branches are often called "political powers" because they represent different perspectives on the desired direction of a community. In contrast, the judiciary is considered a "fair and impartial power." Judges within this branch are expected to carry out their roles without being influenced by political bodies or responding to their political views. Some positions within the political branches are usually elected or appointed and serve for a fixed term. Conversely, positions within the judiciary, or non-political positions, are typically appointed rather than elected. Judges in these positions serve until their death, retirement, or removal due to conviction.

b. **Governance within the PoH DAO was structured around entities analogous to the legislative, executive, and judiciary branches.** The PoH DAO membership acted similarly to the legislative power. Upon its announcement, PoH DAO members were granted authority to deliberate and decide (legislate) on issues such as the PoH registry DApp. The PoH DAO Mission Board operated in a similar manner to a judiciary interpreting the law. According to HIP 21, it was not a management body, but it had broad powers to interpret the rules of the DAO. The Kleros Humanity Court, while a service provider, had been given the power to adjudicate on cases limited to challenges to profiles submitted to the PoH registry. Developers and members of the Kleros Cooperative, along with the Kleros governor contract that translated Snapshot votes into on-chain decisions, took on a role similar to the executive power. Volunteers and elected or appointed community members also took on administrative tasks, such as managing communication channels and submitting proposals from the governance forum to Snapshot.

c. **Decision-makers represented implicit power structures emerging from the Tyranny of Structurelessness.** The PoH and UBI projects were launched after a collaboration between Kleros Cooperative and DEF. One of the consequences of launching the PoH DAO with an incomplete governance structure was that implicit power structures would inevitably emerge and be hard to remove. As such, most individuals in decision-making positions were either leaders or members of the Kleros Cooperative or the DEF, or PoH DAO members aligning with the voiced expectations of these organizations. Most of the PoH DAO votes were delegated to Kleros Cooperative CTO Clément Lesaege and DEF founder Santiago Siri. The interim Mission Board ([HIP 7](#)) consisted of four members, two of which belonged to the Kleros Cooperative and two to the DEF. According to a comment made on the HIP 49 thread, members of the Kleros Cooperative team, including the co-founders, eight developers, one integration manager, two moderators or community managers, were in charge of the executive and administrative tasks such as helping with smart-contract reviews, working on integrations, and moderating and managing PoH DAO Telegram channels. The Kleros governor, a self-executing smart contract, was also developed by the Kleros Cooperative. Finally, the Kleros Humanity Court belonged to the Kleros dispute resolution system developed by the Kleros Cooperative.

d. The PoH lacked crucial governing bodies and officials to help reconcile extreme faction-leaning views.

> **i.** Firstly, the PoH DAO did not hire its "DAO workers." The DAO workers were supposed to serve a function similar to a state's civil servants, meaning they would be hired based on professional merit and take on administrative tasks within the three branches of power. The PoH DAO announced the recruitment of "workers of the DAO," including a project manager and a developer, in April 2021 ([HIP 2](#), [HIP 3](#), [HIP 13](#)). Despite several candidates having applied for the position, the process stalled due to deadlocks in the Mission Board, and the positions were never filled. Instead, as mentioned above, the functions were implicitly exercised by leaders and members of Kleros Cooperative and DEF or community members in line with their views.

> **ii.** Secondly, the PoH DAO lacked an impartial and fair adjudication body. While the Kleros Humanity Court was responsible for resolving disputes about profiles submitted to the PoH registry, the PoH DAO did not have a fair and impartial governing body to intervene in any other disputes. During our interviews, the most cited disputes included the alleged arbitrary application of the code of conduct for PoH Telegram channels ([HIP 19](#)), the alleged arbitrary application of the rules to elect administrators of communication channels (HIP 16), and Snapshot proposers ([HIP 34](#)), and the failure to fulfill responsibilities as an elected member to the Mission Board ([HIP 60](#)). These disputes could have been handled by an impartial and independent governing body with the power and responsibility to adjudicate.

> **iii.** Thirdly, the PoH DAO lacked a governing body and appropriate procedure to ensure accountability in cases of abuse of power. Through 2021 and 2022, there were several allegations of abuse of power by Mission Board Members, which led to Clément Lesaege's destitution ([HIP 72](#)) followed by the ultimate elimination of the Mission Board as a governing body ([HIP 75](#)). An impartial and dedicated governing body should have dealt with these grave allegations with the power to impeach elected officials, similar to what happens within states.

6. Governance Platforms

In modern democracies, governance takes place across a spectrum of platforms, encompassing both physical and digital spaces. Traditional governance occurs in physical polling places during elections and in governmental institutions such as legislative assemblies, where representatives deliberate and make decisions on behalf of the electorate. Additionally, governance can extend to digital platforms, including official websites. This section will delve into how the PoH DAO governance system was designed, examining the digital platforms and interfaces utilized, as well as their influence on community polarization and conflict.

6.a Inadequate Governance Platforms

> Key takeaway: The nature and design of the off-chain platforms used for governance, including deliberation and voting, made them relatively inaccessible or inadequate for their performed function. The PoH DAO also refrained from "dogfooding" its own technological innovations for deliberation and resolving its internal disputes, which could have served as good mechanisms for harmonizing its diverse community.

Another factor that furthered the PoH DAO crisis revolved around the governance platforms. The PoH DAO heavily relied on off-chain governance, where governance decisions were not automatically transposed into the PoH smart contract. Among the most popular ones was the PoH governance forum, where members would submit and debate on HIPs; more than a dozen Telegram groups, including "official" and "non-official ones," thematic groups, and groups for certain language speakers, where the community communicates on an ongoing basis; and the PoH Snapshot page, where proposals were voted on by DAO members registered in the PoH registry. Yet, the nature and design of these governance tools may have contributed to the community's polarization. Firstly, some of them were not entirely accessible to some members. Secondly, others were designed in ways detrimental to their purpose. Finally, the PoH DAO failed to "dogfood" its own tools by leveraging its own blockchain solutions.

   a. **Some governance platforms were not entirely accessible to some members.** During our interviews, PoH DAO members mentioned that some platforms used to deliberate and vote were difficult to navigate: "Snapshot has always been difficult for me. I could never get used to entering, reading, and following the discussion in the forum [either]." Some interviewees were concerned that most of the community was unaware that voting on Snapshot didn't involve paying transaction fees, as it is the usual case when transacting on a blockchain. When digital platforms used for governance are relatively challenging to navigate and utilize, it is often the neutral members who bear the brunt of discouragement from participating in decision-making processes within an already highly polarized community. Unlike factions with entrenched interests, these neutral members may lack strong incentives to engage actively in deliberation and voting. The added complexity of navigating cumbersome platforms may further deter their involvement, exacerbating feelings of exclusion and disengagement. As a result, the voices of neutral members, who could potentially serve as mediators or bridge-builders within the community, became marginalized, leading to a further entrenchment of polarization and a deepening of the governance crisis.

   b. **Some governance platforms were designed in ways that were detrimental to their intended purpose.**

i. Telegram, when used for deliberation, does not have a robust default design to conduct a mass-scale organized debate. The Telegram platform focuses on instant messaging, communication, group messaging, and internet calls. Its user interface is clean and simple. However, as the participants in a Telegram group chat grow in size, it is harder to moderate conversations among them. Furthermore, as the Telegram groups grew, following conversations and discussions became increasingly difficult and chaotic. We experienced this firsthand as researchers, choosing to rely predominantly on the governance forum to anchor our arguments while keeping the general sentiment from Telegram groups (which formed the primary point of discussion) in mind throughout our interpretations. By default, a Telegram group is one chat room where all participants can pseudonymously send instant messages. As such, "avatars" or fake virtual personas can participate in these groups and send spam messages or contain offensive, violent content or misinformation. While one can install bots to remove users who behave inappropriately and create subgroups within Telegram groups (similarly to having channels), Telegram is less suitable than platforms such as Discord, Slack, or even the PoH governance forum webpage.

ii. Telegram, when used for binding polls, does not ensure a 1-person-1-vote. The issue of holding polls in PoH DAO Telegram groups and whether the results should be considered binding is problematic in and of itself. Unless the Telegram group was integrated with the PoH registry, there is no way to ensure each "unique and single person" can vote on the poll *only once*. Based on the democratic spirit of the PoH DAO, even if Telegram polls were used for sentiment-gathering, it was not the most appropriate tool for the task at hand. Strong faction-leaning individuals can create many avatars to stir public sentiment or affect poll results.

iii. Snapshot, used for voting, does not ensure voters' anonymity. One of the features of voting on Snapshot was that it tied each Ethereum public address to the option they had chosen. While this is not directly "doxxing" a person, in the context of the PoH DAO, one can match the Ethereum address to the appropriate profile listed in the PoH registry. Each registered profile displays a picture and a bio description, among other biometric data. Ensuring voters' anonymity is another crucial feature of a democratic environment the PoH Snapshot page does not provide. Again, neutral community members or members who don't want to vote following "party lines" may refrain from doing so, fearing facing retaliation.

c. **The PoH DAO did not "dogfood" its own tools leveraging on its own blockchain solutions.** Most of the platforms used to govern the PoH DAO were off-chain or not blockchain-based. Yet, considering how innovative the project was, it could have benefited from using its own technological inventions.

    i. The PoH DAO did not have communication channels that were exclusive to registered profiles only. This led to issues associated with the legitimacy of the voted decisions, particularly in platforms open to anyone to join, such as Telegram groups, as described in the previous section. It also fostered a lack of trust among the users, where participants could question the nature of each other's intentions. Deliberation could have benefited from token-gated deliberation spaces linked to registered and verified identities. Token-gating deliberation restricts participation to blockchain token holders. Suppose the PoH DAO had designed a space for UBI token holders registered in the PoH registry, instead of users who

merely acquired UBI in an exchange. In that case, governance deliberations could have ensured participants had "real stakes" and wished for the best possible outcome for the project, including the PoH DAO itself. This could have led to a less polarized environment or, at least, to one where polarization was genuinely organic.

ii. Disputes related to internal PoH DAO governance issues lacked decentralized resolution mechanisms. While one faction of the PoH DAO was clear enough about their discontent with the Kleros dispute resolution system, internal DAO disputes (including issues such as the application of moderation rules or alleged abuse of power) were resolved in an entirely off-chain and unstructured manner. These disputes were addressed by recommendation and interpretation of a highly political governance body, such as the Mission Board. Unfortunately, the founding organization, Kleros Cooperative, with its expertise in decentralized dispute resolutions, did not consider proposing any solutions to give this process a higher sense of fairness and transparency. A solid dispute-resolution solution could have helped prevent community polarization.

7. Governance System

As opposed to ancient Greek direct democracies, the governance system of most Western nation-states is a representative democracy. The PoH DAO implemented a unique approach by incorporating elements of liquid democracy, blending both direct and representative models. In this section, we will analyze the role of this hybrid system in contributing to the governance crisis within the PoH DAO community.

7.a. Governance System Design Weaponizable by Factions

> Key takeaway: In many instances, the PoH DAO governance system and voting mechanism designs fell prey to the Tyranny of the Majority and the monopolization of voting power by charismatic leaders of each perceived faction.

A final factor contributing to the PoH DAO governance crisis was its governance system and voting mechanism. The PoH DAO launched as the first DAO in the Ethereum ecosystem to implement a liquid democratic governance system based on a voting mechanism of 1-person-1-vote. In September 2022, delegations became quadratic instead of direct. Most proposals subject to ballot on the PoH Snapshot page were tailored as single choice and adopted under a simple majority rule. The Snapshot design meant that voting was an open and transparent process. In other words, the voters' identities were not anonymous— one could trace how the Ethereum addresses voted and pair them up with the Ethereum addresses of the profiles registered in the PoH registry. These elements combined did little to prevent the liquid democratic governance system from decaying into a Tyranny of the Majority and the monopolization of voting power by charismatic leaders of each of the perceived factions. As a result, the PoH DAO governance system and voting mechanism, at least up until September 2022, may have amplified the existing community polarization instead of helping breach it.

a. **Liquid democracy as a legitimate governance system faces two inherent dangers.** Broadly speaking, liquid democracy is a hybrid governance model combining aspects of representative and direct democracy. The members of a given organization can decide whether to vote directly

on an issue, abstain from voting, or delegate their votes to a representative. Depending on its specific configuration, members can also withdraw their votes from the representatives they have delegated to. This governance system faces two dangers, partly inherited from its democratic predecessors. Firstly, the Tyranny of the Majority: Classic and modern political thinkers, including James Madison, Alexis de Tocqueville, and John Stuart Mill, warned that democracies may decline in situations where a quantitatively larger group continues to "win" the decision-making instances, thus suppressing the voices of minorities (Cossar 2018). Secondly, the monopolization of voting power in the hands of few: Since directly voting on issues costs time and expertise, liquid democracies may suffer from an "abundance of delegations" towards a few based on their perceived qualities, such as charisma or expert knowledge (Democracy Earth 2017).

b. **These dangers are not inevitable.** The Tyranny of the majority can be mitigated with higher thresholds for adopting decisions, such as supermajority requirements (McGann 2004). In replacement of 1-person-1-vote, it can also resort to quadratic voting, where members can allocate several votes according to the degree or intensity of their preference and thus win a ballot even if they are quantitatively a minority (Posner & Weyl 2017). The monopolization of voting power in the hands of a few can also be avoided. Instead of direct delegations, the PoH DAO ultimately adopted quadratic delegations ([HIP 63](#)), which penalized delegating many votes to the same person. A DAO can also offer tools for members to easily inform themselves about a specific ballot, reducing the time and expertise they need to vote directly on issues.

c. **Yet, the design of the PoH DAO governance system and voting mechanisms may have actually amplified these dangers and, with them, the community polarization**. Beyond implementing quadratic delegations in September 2022 ([HIP 63](#)), the PoH DAO did not take other measures to contain the "Tyranny of the Majority" nor monopolize voting power. Many debates framed as dilemmas and approached with a "convex" mentality led to proposals being passed with a little more than 50% of the votes. Some members expressed: "The Argentinean community has way too many votes. It worries me a bit because, ideally, you would have at least 4 or 5 factions and not one single community that would be able to win every election," illustrating the importance of community makeup. Interviewees also observed that Kleros Cooperative CTO Clément Lesaege and DEF founder Santiago Siri monopolized most of the voting power through delegated votes. The fact that votes on the PoH Snapshot page were not anonymous by design may have amplified these dangers—members wishing to vote differently than their faction may have refrained from doing so, fearing retaliations.

III. Timeline of Events

This section presents a timeline of significant events at the PoH DAO, spanning from August 2014 to November 2022. It's crucial to note that, despite our team's rigorous efforts to comprehensively understand the situation, it's impractical to document every single event that has impacted the governance of the PoH project and the subsequent crisis in the PoH DAO. Therefore, we've focused on highlighting the events that have been most extensively and publicly discussed within the community, as evidenced by our analysis of governance platforms and the interviews we conducted. The timeline below is arranged chronologically, starting from the initial conceptualization of the PoH idea and culminating in the community's vote in favor of "forking," along with key developments that occurred shortly after the decision to split the project.

August 2014

- Ethereum founder Vitalik Buterin shared a [blog post](#) on "Hard problems in Cryptocurrencies" highlighting, among others, the pressing need to develop anti-spam and anti-Sybil attack algorithms. The blog post would become a source of inspiration for developing the Proof of Humanity Sybil-resistant registry of humans.

July 2019

- Democracy Earth Foundation (DEF)'s founder Santiago Siri [participates](#) in Episode 2 of #HumansofEthereum on "reimagining democracy using tools like quantitative voting" and questions on "how to distinguish humans (Etherean or otherwise) from replicants."

August 2019

- An [initial Proof of Humanity paper](#) is drafted and the development of the Proof of Humanity project kickstarts.

September 2019

- Kleros Cooperative launches a "Proof of Humanity" Telegram group to discuss the creation of a Sybil-resistant registry for humans. Kleros Cooperative's CEO (President) Federico Ast invites DEF's founder Santiago Siri to join. The Telegram group grows to attract new members curious about the underlying idea.

October 2019

- Kleros Cooperative holds a [meetup](#) at the Ethereum Developer Conference (Devcon) 5 about "Proof of Humanity."

February 2020

- Kleros Cooperative CEO (President) Federico Ast gives a [presentation](#) at Ethereum London, mentioning the Proof of Humanity Telegram group and Proof of Humanity as one of Kleros' use cases.

March 2020

- Kleros Cooperative CTO Clément Lesaege gives a [talk](#) at the Ethereum Community Conference (EthCC) on "Proof Of Humanity, a Sybil-resistant list of humans."

November 2020

- Kleros Cooperative's "Proof of Humanity" project is mentioned in one of the first articles on Proof of Personhood Protocols to date, titled "[Who Watches the Watchmen: A Review of Subjective Approaches for Sybil-Resistance in Proof of Personhood Protocols](#)," co-authored by DEF's founder Santiago Siri.

- Kleros Cooperative hosts a virtual [conference](#) on "Humans on The Blockchain," with Santiago Siri as an invited guest.

January 2021

- Kleros Cooperative team member Damjan Malbašić shares a [post](#) on Kleros' blog page on how to create unique human digital identities to enable social blockchains and democracy online. The post mentions Santiago Siri and DEF's work in the realm of voting technologies.

February 2021

- Kleros Cooperative CEO (President) Federico Ast [posts](#) on Twitter that the final product review meeting before the launch of Proof of Humanity had been held.

March 2021

- Kleros Cooperative and DEF members **announce the launch of the Proof of Humanity smart contract, the [Proof of Humanity web DApp](#), and the UBI smart contract** in a series of posts on the Kleros' blog ([here](#), [here](#), and [here](#)) and a series of Tweets from Kleros Cooperative's CTO Clément Lesaege ([here](#)) and DEF's Founder Santiago Siri ([here](#)).

- The POH governance [forum](#) is launched. [Initial conversations](#) in the General Chat channel on the forum include topics such as the amount of ETH to be deposited during a profile submission and ways to **mitigate a possible price increase of ETH** as "one of the aspirations is to extend UBI universally."

April 2021

- Kleros Cooperative Operations Director Stuart James publicly announces **the launch of the Proof of Humanity DAO** in a [post](#) on the Kleros blog. The DAO is introduced as the first "truly democratic 1-person-1-vote governance system with open participation," a "truly egalitarian voting mechanism backed by on-chain transparency ensures no member can vote more than once." The article argues that the DAO is expected to develop its governance processes through "HIP - Humanity Improvement Proposals" posted on the PoH DAO forum and voted on a [PoH Snapshot page](#). Approved proposals on on-chain governance are supposed to be "automatically translated into code enforcement by the Kleros governor." Initially, the PoH DAO members are expected to deliberate and decide on 1) The Proof of Humanity DApp (parameters such as submission deposits, and amount of vouchers required for registration), 2) The UBI contract (UBI issuance rate), and 3) An allocation of 4,000,000 UBI.

- PoH founder and Kleros Cooperative CTO Clément Lesaege submits two proposals (HIP 2 and HIP 3) to recruit "**workers for the DAO**," including a project manager and a software developer. Candidates ought to submit a proposal, be interviewed by volunteers of the DAO, complete one recruiting exercise drafted by volunteers of the DAO, receive feedback from the volunteers—first privately and then publicly—, and then have their proposals submitted to a vote. The proposals are adopted on Snapshot (HIP 2 and HIP 3) and become binding.

- PoH DAO member Jrag submits a proposal (HIP 5) to "**adopt a proper PoH DAO Governance process to ensure HIP quality**." The proposal presents a 3-phase process, in which each phase has a different duration and passing requirements for a proposal to be adopted and become binding. The proposal is adopted on Snapshot and becomes binding.

- PoH DAO member Mads submits a proposal (HIP 7) to "**institute a management board**," a governance body later on referred to as the "Mission Board," in charge of "managing the DAO re-sources (employees, websites, money) in accordance with democratic decisions." The proposal declares that the "informal managers" by that time, "4 Kleros members, and 2 Democracy.Earth members" become formalized as the management board for a "period of 1 year after adoption." Elections for the positions are set to be held thereafter. PoH founder and Kleros Cooperative CTO Clément Lesaege, Kleros Cooperative CEO (President) Federico Ast, DEF founder and UBI founder Santiago Siri, and DEF co-founder Herb Stephens became mission board mem-bers. The proposal is adopted on Snapshot and becomes binding.

May 2021

- PoH DAO member Ludoviko submits a proposal (HIP 8) to "**accept 352 as the minimum di-mension in video submissions**." The proposal emerges from a debate within the community after several profiles are challenged for inadvertently submitting the video proof with 352 pixels, instead of the required 360 pixels, after exporting the videos from WhatsApp. The proposal is adopted on Snapshot and becomes binding.

- PoH DAO member Mads submits a proposal (HIP 10) to "**create a decision locking mecha-nism"** to make some decisions harder to reverse later and signal to the world they would remain untouched for some time. The proposal was adopted on Snapshot and became binding.

June 2021

- PoH DAO member Ludoviko submits a proposal (HIP 16) to "**make admin roles of communi-cation platforms eligible**." The community-managed channels include but are not limited to, the PoH governance forum website, Twitter, Facebook, Reddit, Discord, WhatsApp, Instagram, and Telegram. The proposal states that elections will be held separately for each platform, using Tokenlog. The proposal explains the role of the administrator and the requisites for obtaining "community-managed" badges in communication channels. The proposal is adopted on Snap-shot and becomes binding.

- PoH founder and Mission Board member Clément Lesaege submits a proposal (HIP 18) on **"communication roles"** to institute a mechanism to determine the position of administrator in the social communication tools that are recognized as official by the DAO, either social media (Twitter, Reddit) or communication channels (Telegram groups). HIP 18 conflicts with some as-pects of HIP 16. The proposal passes to Phase 2 but it is not adopted on Snapshot.

- PoH DAO member Paula Berman submits a proposal ([HIP 19](#)) to establish a "**code of conduct for PoH Telegram channels**." The code of conduct establishes threats, sexually explicit material, discriminatory jokes and language, personal insults, doxxing, among others, as reasons for being banned from the channel. The proposal is [adopted](#) on Snapshot and becomes binding.

- PoH DAO member Mads submits a proposal ([HIP 21](#)) to **"amend the rules of the 'Mission Board'"** which clarifies the scope of power and "adds two tie-breaking mechanisms - a 5th board member and a tie-breaking vote." The Mission Board is intended to have a "broad power to interpret the rules of the DAO, including filling in details not specified in a proposal." The proposal is [adopted](#) on Snapshot and becomes binding. [Justin Kalland](#) gets elected as the 5th Mission Board member one month later.

July 2021

- PoH DAO members, including Santiago Siri, Clément Lesaege, RustyTheGamer, and fraserdscott submit a proposal to **"create a UBI DAO"** ([HIP 22](#)). The governance of the PoH smart contract and the UBI smart contract is now carried out in different Snapshot pages and governed following different voting principles. For PoH DAO, 1-person-1-vote. For UBI DAO, votes are based on the voting power of $UBI token holders following a quadratic voting scheme. The proposal is [adopted](#) on Snapshot and becomes binding.

- Kleros Cooperative Integration Lead Jimmy Ragosa gives a [talk](#) at EthCC 4 dedicated to the issues of DAO Governance and the "Proof of Humanity DAO" experiment.

October 2021

- PoH Founder and Mission Board Member Clément Lesaege submits a proposal on **"Snapshot administration"** ([HIP 23](#)) to have Mission Board members put proposals to the vote on the Snapshot page while providing protection in case the Mission Board or Snapshot were to censor proposals. The proposal is not adopted.

December 2021

- PoH Founder and Mission Board Member Clément Lesaege submits a proposal ([HIP 31](#)) on **"Clarification on UBI DAO rules"** which states that the rules of the UBI DAO rules are the same as the POH DAO rules at the time of [HIP 22](#) unless stated otherwise in a UBI DAO proposal. This includes rules on the voting period, deposits on the Kleros Governor application, challenge period, delegations, and the process to pass proposals. The proposal was [adopted](#) on Snapshot and became binding.

- PoH DAO member Ludoviko submits a proposal ([HIP 33](#)) to kickstart a conversation about the importance of protecting the PoH registry against **"profile farming,"** whereby a person recruits humans to register to PoH, collect their accrued UBI, and potentially increase the person's power over the DAO, and **"puppeteering"** or the action of one person taking control over another person's account to perform attacks on the platform. HIP 33 was submitted after several accusations regarding profile farming had already been raised against various individuals engaging in profile farming (both in the South American context and within Kleros) and the community had engaged in debates on how to deal with profile farming.

January 2022

- PoH DAO members Juanu and Mizu submit a proposal ([HIP 27](#)) to "**allow 1-character mistakes in displayed addresses**" due to the number of profiles getting challenges based on these grounds. The proposal gets [adopted](#) on Snapshot and becomes binding.

- PoH DAO member Ludoviko submits a proposal ([HIP XX](#)) to **remove Clément Lesaege from the Mission Board** due to "anti-dao and anti-democratic maneuvers," including claims of "obstructing normal governance procedures, an unsuccessful attempt to remove a valid admin from the Telegram group, disregarding serious security threats to the registering process, systematically obstaculizing any process that helps humans register, making Proof of Humanity a dispute-creating machine, stalling the hiring process of DAO workers, among others. The proposal is not adopted.

- PoH Founder and Mission Board Member Clément Lesaege submits a proposal ([HIP 34](#)) on **"Snapshot proposers"** specified as Mission Board members and their delegates, people employed by the DAO, and people elected through a proposal, who would have the ability to make and remove proposals on Snapshot to avoid spamming while refraining from giving the Mission Board power to censor views. The proposal is adopted on Snapshot and becomes binding.

- PoH DAO members and Kleros Cooperative affiliated members NingFid, Senryu, and Fnanni submit a proposal (HIP 36) on the "**registration validity extension and change of renewal period**" which addresses "the costs to register" in order "to maintain the momentum in registration and remain as the largest on-chain identity system." The proposal is adopted on Snapshot and becomes binding.

- The TIME publishes an [article](#) on "How Blockchain Could Solve the Problem of Digital Identity." The article initially features **Santiago Siri as a founder of PoH**. The TIME edited the article a few days later, stating Santiago Siri was not the founder of PoH. This incident later became cited as an example of Santiago Siri's desire to leverage others to refer to himself as a founder of PoH, which Kleros Cooperative saw as untrue and misleading.

- PoH DAO members Ludoviko, Juanumusic, and 0xjean.eth submit a proposal ([HIP 38](#)) to **"elect the first batch of Snapshot proposers."** The proposal is [adopted](#) on Snapshot and becomes binding.

February 2022

- PoH DAO member Mads submits a proposal ([HIP 39](#)) on **election rules for officials to the Mission Board**, since most posts were to expire in June 2022. The proposal is [adopted](#) on Snapshot and becomes binding.

March 2022

- PoH DAO member nicobilinkis.eth submits a proposal ([HIP 41](#)) to **allow verbal confirmation for registering users** and thus make the registering process more accessible for humans, including people with movement or vision impairment. The proposal is adopted on Snapshot and becomes binding.

- UBI founder and PoH DAO Mission Board member Santiago Siri appears as an invited guest on the Gitcoin Founder Kevin Owocki's podcast episode. He is introduced and referred to as a founder of PoH.

May 2022

- From 21-28 May 2022, the PoH DAO conducts the first **Mission Board elections** through a binding [ballot](#) on Snapshot. Four members are elected: UBI founder Santiago Siri, Kleros Cooperative team member Jean, PoH founder Clément Lesaege, and Juanu, a software developer and community member who had previously been involved with the development of the UBI token. Mission Board member Justin Kallard retains his position, which has not expired yet.

- PoH DAO members Lety and nicobilinkis.eth submit a proposal ([HIP 42)](#) to allow first-time registrants to the PoH registry, or those who renew it, to **say in Spanish the phrase required in the video submission**. The proposal is adopted on Snapshot and becomes binding.

June 2022

- PoH DAO member Ludoviko reintroduces the proposal ([HIP 48)](#) to **remove Clément Lesaege from the Mission Board** due to "anti-dao and anti-democratic maneuvers." The proposal passes to Phase 2, but it is not [adopted](#).

- Approximately twenty PoH DAO members submit a proposal ([HIP 49](#)) to "**change the arbitrator**" that solves the disputes over challenged profiles at PoH to form a new one that better serves the interests of the PoH community. The proposal [passes](#) to Phase 2, but it is not adopted.

- PoH DAO member Ludoviko [reintroduces](#) the discussion on the importance of protecting the registry against **"puppets" and "farming attacks"** from [HIP 33](#).

- [Avraham Eisenberg](#) published on his Substack channel "DeepFiValue" titled ["The Kleros experiment has failed"](#). The post criticizes Kleros as a blockchain arbitration system due to the alleged activities of "whales" or big holders of Kleros' native token, PNK. He alleges that Kleros Cooperative CTO Clément Lesaege was able to influence the decision of the so-called **"Unslashed case"** by having a disproportionately larger stake.

- PoH DAO members [ask](#) in the PoH Telegram group channels for Kleros' to explain the situation behind the **"Unslashed case"**.

- PoH founder and Mission Board member Clément Lesaege [replies](#) to a Twitter thread published by FatManTerra on the **"Unslashed case"** on how the jurors voted on the case [stating](#) that "@Kleros_io

- is only a judicial system, not a legislative one. In those cases the legislator was the Unslashed protocol so Kleros did apply the rules given by Unslashed" and also [explains](#) the PNK distribution among jurors.

- Members get banned from the **Telegram Group @proofofhumanityenespanol** after allegations of toxicity, "trolling," and inappropriate language. The banned members see this action as censorship of dissident voices. Clément Lesaege sends a [message](#) stating that the Telegram group belonged to the Kleros Cooperative from a legal and technical standpoint because Kleros Cooperative CEO Federico Ast had [created](#) it as part of his job for the Cooperative. Santiago Siri [replies](#) that the Telegram Group belongs to the DAO, and his message is [supported](#) by other community members.

- PoH founder and Mission Board member Clément Lesaege and UBI founder and Mission Board member Santiago Siri agree on **4 points of consensus** to **"be able to continue working together."**

July 2022

- After the events in the Telegram Group @proofofhumanityenespanol**,** PoH DAO members Ludoviko and Valen submit a proposal (HIP 50) to **"clarify which Telegram group and Twitter accounts belong to PoH DAO."** The proposal suggests adopting two specific Telegram groups and two new Twitter accounts, one in Spanish and one in English for each platform, as the "official comms channels" belonging to the PoH DAO. The proposal is adopted on Snapshot and becomes binding.

- PoH DAO and Kleros Cooperative team member NingFid submits a post on the **acceptable management of family member's PoH accounts,** including those belonging to small children, adults, and old persons or parents. The community deliberates on whether to tighten or loosen the PoH registration policy.

- PoH DAO and Kleros Cooperative team member Greenlucid submits a proposal (HIP 55) against "puppeteers" to ensure **explicit Sybil resistance.** The member proposes to allow challenging puppeteered submissions as a duplicate. The proposal remains in Phase 1.

- PoH DAO member Ludoviko submits a proposal (HIP 58) on the **removal of "vouchallengers"** defined as the ones vouching for registered humans to challenge them right after. The proposal passes to Phase 3.

- Clément Lesaege publishes an on the **"recent drama" in Proof of Humanity** in Spanish and English. The article mentions financial issues of Democracy Earth, Santiago Siri pretending to be a founder of Proof Of Humanity, the situation with the Telegram groups, and HIP 49 "aka protocol self-destruction."

- On Twitter, Santiago Siri argues that Clément Lesaege's article is part of a "**smear campaign**."

- PoH DAO and Mission Board member **Juanu** submits a post where he **resigns from his position**.

- PoH DAO member Ludoviko opens an election thread for the **Mission Board member vacancy.**

August 2022

- PoH DAO member Ludoviko submits proposal (HIP 60) for the "**removal of Justin Kalland of the Mission Board**" due to his inactivity. The proposal passes to Phase 2, but it is not adopted.

- Elections for the vacant Mission Board seat were held on Snapshot between candidates Valen and Green. **Valen** is elected as a member of the Mission Board.

September 2022

- Santiago Siri submits a post on the alleged "**farming of delegations**" or profiles created which were "automatically delegating voting power to Clément Lesaege." This post should be evaluated in the context of ongoing discussions that began to emerge before HIP 33 and was addressed in various subsequent HIPs, without being fully resolved.

- Clément Lesaege submits a proposal ([HIP 62](#)) on "**explicitly forbidding the farming of profiles**." The proposal is understood as being addressed by previously submitted [HIP 55](#).

- Clément Lesaege starts a [conversation](#) in the PoH forum about **whether the PoH DAO should fork**, alongside a poll in which the majority of votes favor forking.

- Santiago Siri introduces a proposal on Snapshot to suspend delegations until "proper legislation" is adopted on the "**farming of delegations**." The proposal is [adopted](#) on Snapshot and becomes binding.

- PoH DAO community submitted a proposal ([HIP 63](#)) on **quadratic Delegations on the PoH DAO Snapshot** to "help prevent clientelism and vote gerrymandering." The proposal is [adopted](#) on Snapshot and becomes binding.

- PoH DAO member Arkayana submits a proposal ([HIP 68](#)) that provides an **implementation strategy and the requirements for a second arbitrator**. The proposal remains in Phase 1.

October 2022

- Santiago Siri gives a [presentation](#) at the **Ethereum-organized event *DevCon*** in Bogotá, Colombia, on UBI. The moderator introduces Santiago Siri as a "founder of Democracy.Earth Foundation (....) that has built UBI on Ethereum and launched the Proof of Humanity Protocol." Clément Lesaege, in attendance, shouts "a liar," claiming that he cannot be presented as a person who created Proof of Humanity.

- Avraham Eisenberg's successful [attack](#) on [Mango Markets](#) sparks additional [discussions](#) on the previous **"Unslashed Case"** around the legitimacy of "whale" participation in Kleros courts that has prevented similar attacks.

- PoH DAO members submit a proposal ([HIP 71](#)) on the **"election of moderators"** of **"official groups"** and **"community channels"** of the DAO. HIP 71 establishes the responsibility, election, and implementation of election results of moderators and derogates [HIP 16](#). It is one of the only proposals on PoH DAO governance issues to be submitted solely in Spanish. The proposal is [adopted](#) on Snapshot and becomes binding.

- PoH DAO members reintroduce proposal ([HIP 72](#)) requesting the **removal of PoH founder Clément as Mission Board Member**, adding that the events taking place during Santiago Siri's presentation at *DevCon* showed that Clément Leseage was not aligned with the democratization and decentralization and respect for the privacy of individuals being registered in the DAO. The proposal is [adopted](#) on Snapshot with 50.43% of the votes and becomes binding.

- Approximately 105 PoH DAO members finalize an [experiment](#) through [pol.is](#) in an attempt to **decide on the priorities for the project.** The results showed that 94% agreed that they should aim for Proof Of Humanity to be used by a lot of protocols, 91% considered that they needed a dispute resolution mechanism that is secure and reliable, and 95% coincided with the statement that responsibilities and expectations of a role should be clear and comprehensive before an individual is elected or hired.

November 2022

- Clément Lesaege, PoH founder, Santiago Siri, UBI founder, and Andrei, PoH DAO member, submit a proposal ([HIP 74](#)) on a **"Peaceful Fork".** The proposal lists the resources that will remain in PoH v1 and not be modified. The proposal also lists the list of resources to be deployed in PoH v2, which will be forked into "PoH-Origin (Kleros Coop)" and "Open-PoH (UBI)." The proposal is **adopted on Snapshot with 78.65% of the votes and becomes binding**.

- PoH DAO members submit a proposal (HIP 75) to **remove the Mission Board member role.** The proposal is adopted on Snapshot and becomes binding.

Conclusion

Proof of Humanity remains a leading project in the blockchain-based digital identity space and a pioneer in advancing new forms of governance in the DAO ecosystem. In this report, we present our findings from 6 months of ethnographic research conducted via participant observation, fourteen semi-structured interviews, and desk review. Given the increasing tensions that unfolded within the PoH DAO community and the overall emphasis placed on it being the first experiment of "democratic governance" in the Ethereum ecosystem, our research was guided by the question: **What governance dynamics led to the Proof of Humanity DAO's crisis and subsequent decision to "fork"?**

We structured our observations influenced by salient themes prevalent in liberal and critical democratic theory: (1) constituting a democracy, (2) citizenship and the demos, (3) political deliberation, (4) the law, (5) the government, and (6) governance platforms, and (7) governance system. Our main findings can be summarized as follows:

1. **Constituting a democracy:** PoH DAO was initiated by two organizations that, upon closer examination, held significantly divergent and occasionally conflicting expectations for the Proof of Humanity (PoH) project. The minimal governance structures and lack of common agreement on the animating purpose of the project, as well as mechanisms to prevent and mitigate conflict, led to the perspectives of Kleros Cooperative and DEF becoming focal points for the wider PoH DAO community. This situation played a significant role in fostering polarization within the community.

2. **Citizenship and the demos:** The PoH DAO's membership was characterized by various backgrounds, interests, and aspirations for the project, alongside frequently conflicting views on its governance and future direction. Although a consensus existed on the community's factionalized state, there was less agreement on the nature of these factions and various other aspects of the observed polarization. However, the very perception of factional divides, coupled with the public expression of these views, appeared to deepen and solidify the divisions within the community.

3. **Political deliberation:** Debates about the management of the PoH registry and governance of the PoH DAO often took the form of dilemmas and were approached with a confrontational, inflexible attitude, complicating efforts to bridge differences among community members and factions. This challenging dynamic was exacerbated by a deliberation culture that, at times, was unproductive and problematic, making compromise even more elusive across the community. Several factors contributed to this unconstructive atmosphere, including the excessive segmentation of discussion spaces, a diminished trust due to reliance on anonymity or pseudonymity in certain forums, an unregulated "implicit feudalism" by administrators and communication group owners, language barriers, miscommunications, and a general political disengagement.

4. **The law:** The PoH DAO adopted rules and procedures akin to a nation-state's legislative framework and legislation. While innovative, these rules were not robust enough to prevent polarization. Over time, particularly vague formulations came to be weaponized by both factions. The DAO failed to pass legislation on four fundamental issues: defining membership rules, defining the fundamental rights and obligations of DAO members, clarifying the separation of powers between various decision-making bodies, and establishing a special amending process for rules considered of higher order.

5. **The government:** The decision-making bodies and individuals in the PoH DAO carried out functions similar to a nation-state's three branches of power: executive, legislative, and judicial. The nature of these bodies and individuals reflected the implicit power structures of the PoH DAO emerging after the project's launch.

6. **Governance platforms:** The technological nature and design of the off-chain platforms used for governance, including for deliberation and voting, made them relatively inaccessible or inadequate for their performed function.

7. **Governance system:** The liquid democracy governance system and the voting mechanisms of the PoH DAO were not robust enough to prevent tyranny of the majority or the monopolization of voting power in the hands of charismatic leaders.

Overall, our findings indicate that many core features of traditional democratic governance were lacking within the PoH DAO, preventing the community from reconciling the underlying differences that persisted since the project's inception.

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