

Interim Report- Goals, Objectives, and Metrics of our RChain Bounty System (DRAFT. See [#783](#))

Contributors: [@allanc](#), [@pmoorman](#), [@jimscarver](#), [@dckc](#), [@lapin7](#)

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Introduction

[@allancto](#)

What is the purpose of our Bounty system?

Our Cooperative was formed to create and provide governance for our blockchain computing network, the RChain Platform. Being a Cooperative provides us with a unique view of what it means to cooperate harmoniously. It embodies the collective intelligence amplifying our abilities as individuals working together. The design of our RChain platform itself will provide us with a unique technological framework to support Cooperation at Scale. The application of our Cooperation at Scale will be the governance required to maintain and evolve the RChain platform after its launch. Our aspiration is that our Cooperative, our Community, our Platform will be joined by this collective intelligence and enable governance required to maintain and evolve the RChain platform after its launch.

Collective intelligence, Cooperation at Scale, and Platform Governance are the three closely related activities at the heart of our Cooperative. Governance is what we are chartered to do within the block zero contracts written into the RChain platform. Collective intelligence is what we seek as the result of cooperating at scale. Our platform in turn is uniquely suited to provide us with the tools to cooperate at scale. At the same time our platform is itself a kind of cooperation at scale, a kind of governance, of the individual nodes of which our platform is composed.

How this came about is in itself an interesting story: it seems to have happened as much by destiny as by intent. This story intertwines several different threads: our RChain platform technology itself, our formation as the RChain Cooperative, and the evolving story of “Governance” on blockchains in general.

Governance

Why do blockchains require “Governance”, and what exactly does that mean? The simple answer is that blockchains, like all other human creations, are often created with unforeseen limitations or bugs that may need to be addressed. In a conventional, centralized organization, Facebook or Google for example, a bug is identified, a source of authority determines whether fixing it is required, and a patch is rolled out. Governance is perceived as a more or less critical issue for many if not all blockchains. Here are some recent governance discussion in the MakerDAO project ([Steven Becker and Soren Peter](#)).

In blockchain, there is no central source of authority. At launch, special blockchain contracts (“blessed” contracts) are set, node operators (aka validators) are given a specification of behavior required for participation, and the blockchain is started up- almost as if by self assembly. After launch there is no revising without active participation of all the parties, in particular the node operators. Anyone may make changes to the original software and recruit node operators to adopt the change. If there is universal agreement, all of the node operators will adopt it and the blockchain’s behavior will be changed accordingly. If there is partial agreement that may result in a “fork”, as happened between “Bitcoin” and “Bitcoin cash”. Blockchain governance is the process of deciding what are bugs, which ones should be patched, implementing the patches in a new release of node software, and convincing Validators to run the patched software.

Our RChain Cooperative is given a great deal of influence in this blockchain governance process. Blockchain governance is a topic of conversation that’s in its infancy. We’re informed by the ethereum EIP ([Ethereum Improvement Process](#)) and by Vlad Zamfir’s [writings and interviews](#). We have a treasury of Rev, and special contracts which grant us authority to make particular changes to its supply. We have much of the most in depth understanding of the underlying technology. We have a unique position of respect and influence because we will

have brought about the launch of the platform itself. But most of all, we are gaining experience now in the essential paradigm of governance, Cooperation at Scale.

Pillars of Cooperation at Scale: Technology and Culture

What is Cooperation at Scale, and how is it different than Governance anyway? All modern systems of governance are based on representing the interests of their stakeholders. The governments of countries throughout the world already embody Cooperation at Scale. Countries support the efforts of millions if not billions of people, all working together to create mutually agreeable solutions to problems as problems arise. Our kind of Cooperation at Scale will likely go further, because our technology enables closer relationships, more significant participation than any system that came before. We will have the technological basis to influence each other and quickly come to consensus on the bugs and improvement proposals that will surely emerge after Mercury launches. What is a bug, which issues should be addressed and which not, these are typical of the challenges we will face. In the end all Governance is in fact Cooperation.

How to achieve harmonious cooperation between large numbers of individuals working more closely together than ever before, will require two pillars: the technology and culture to support this level of cooperation. The remarkable fact is that both of these are also the pillars of the blockchain we are causing to be created, the RChain platform. The technology that allows our nodes to cooperate is our “Correct by Construction” distributed, asynchronous, trustless consensus algorithm. RChain Platform nodes are able to communicate “proposals” for recording transactions and agreeing on the progress of computations, and reach consensus rapidly, arriving at a multitude of small decisions to keep the action moving forward. By comparison, reaching consensus among all the members of our Cooperative is a slower process of collective intelligence, using discussion and voting technologies.

On the RChain Platform all nodes share a common “culture”, embodied as a programming paradigm we call the ρ -calculus, which has properties previous generations of computational models lacked. Rholang, the language based on the rho calculus, and rNode computer storage, provide a new level of verifiability to the programs (“smart contracts”) they are able to process. In the same way, the common culture we are developing in our Cooperative allows us to communicate initiatives quickly and with (relatively) few misunderstandings.

What the future holds

Which problems our Cooperative will want to address, and which to leave alone, are discussions that occupy us now and will occupy us continuously. Our governance affects every user of the RChain platform, every user of a dApp on the platform, every contributor and investor. But that’s not all. If our platform succeeds in the degree we believe it will, our governance will affect people not even using the platform, people not even aware of it. Most of us believe that our community, and particularly our ability to Cooperate at Scale, will inevitably

affect everyone and everything, because it is such a well designed tool, and because Cooperation at Scale so intrinsically amplifies our individual abilities.

Many in the blockchain community feel that blockchains should have as small a footprint as possible, restricted to obvious security bugs and critical performance improvements. I believe this will not be possible. I believe we will need to engage with regulators and other blockchains and political jurisdictions and societal advocates. I believe we will need to invite gifted technical contributors: professionals in game theory and politics, developers who can program at the frontier. We will need good explainers, good journalists, politicians, lawyers, ethicists, mathematicians, artists. We will need to attract people who are already recognized and we will need to nurture and bring out the best in all of us.

What is the purpose of our Bounty system? It's our first attempt to get this right: Governance and Cooperation at Scale within the context of our Cooperative.

Comment by @lapin7

- For all governance there maybe unknown stakeholders. Take the example of a river. At the source of the river, the water is clean. In the middle of it's course, there's a polluting factory. At the end of the river there is a small poor village and all the animals and plants that have to drink water from the river. They are not considered as stakeholders, because they don't have a voice.
- So the governance needs to care of all interest of all living things in a holistic way.

Goals, Objectives, and Metrics

Goals

- Culture to support Cooperation at Scale
- Technology to support Cooperation at Scale
- Develop and recruit members with skills and experience to execute projects of high value to our Cooperative
- Enhance the value of the RChain brand by communicating widely our RChain advantages in technology and governance
- Enhance the value of the RChain brand by communicating widely that RChain governance will be adequate for our task of intelligently addressing future problems and innovations

Objectives

- Cooperation in Skills building
 - Opportunity for bounty system participants to contribute and improve their own skill in the process
 - Teaching by example, advice, discussion
- Cooperation in Governance tools, both technological and cultural
 - Developing a common culture and cultural norms for discourse, rewards, and purpose
 - Developing a technological support structure (tools for communication)
 - Civil discourse, trust and kindness
- Rhythm
 - Developing patterns of expected, predictable interaction
 - Reliance that tasks agreed upon will be completed, commitments fulfilled
- Execution of significant projects of high value to our Cooperative
 - Conceive/ propose/ spec
 - Obtain consensus
 - Action plan matching skills of members with tasks
 - Consistent follow-up within projects

Metrics

- Number of Collaboration systems and their utilization (more is better, as long as there is evidence that the systems address differences in requirement such as github vs gdocs vs adobe creative cloud, rather than differences in affiliation such as by language or geographical area).
 - Specific to bounty system: RChain Worldwide Forum, Glitch (collaborative web development), Design of Computational Calculi folder, Colab discord server
 - Not specific to bounty system: RChain discord server, RChain Members doc folder, support for Collaborative Learning repo
- Number of investors, dApp developers, potential dApp users, and the general public who originally heard of RChain because of bounty system activities
 - Forums
 - Meetups
 - Original published articles and interviews of Bounty system members
 - Public awareness of RChain triggered by bounty system activities
 - Perception of RChain as a reliable, desirable platform because of Bounty system activities
- Overall scale of bounty system
 - Currently: ~60 contributors/ month
 - Current average voted budget: \$80k/ month (more is better IF it represents more quality and quantity of work)
 - Types of projects addressed (roughly, "labels")

- Technical literacy (ability to discuss and assess technical issues throughout our membership)
 - Currently: ? number of members active in the #development channels on discord
 - Currently: ? number of members engaged in Collaborative Learning programs
 - Currently: ? lines of Code written collaboratively
- Number of Innovations
 - Currently: Trustmetric system (how to measure amount of innovation here?)
 - ? web interfaces and tools for web interfaces running on the RChain platform
 - “Prizes” or “mentions” for notable work done within our bounty system
- Number of significant projects of high value to our Cooperative
 - In progress: smart contracts for [health research data sharing](#) (this is an example of really a “sketch”, because it hasn’t yet gained enough traction to be measurable, also has not gotten full team from Bounty system to participate yet)
 - Attract dev talent through Meetups. (number of contributors attracted in this way, total voted value of their contributions)
 - ? campaign to recruit corporate validators for our Platform (companies like Uber, Amazon, Google, Philips, Baidu, who will all need blockchain technology)
 - ? Implement or cause the implementation of dApp projects which have high profile but not necessarily easy to monetize (conveniences such as wallet and management of personal data, collaboration tools like google g-suite, protocols which may be [difficult to monetize](#))
 - ? Build bridges to other entities involved in Governance (bridges to other blockchain projects, bridges to political jurisdictions such as municipalities and countries, bridges to opinion makers and regulators and policy makers)
 - ? Create economic models and support tools to help manage rev and articulate policy

History, background, suggestions

[@leithaus, from first EC meeting, via @dckc]

1. build a thriving open source developer community
2. involve the creative community in telling the RChain story

Comments (@allancto) This statement of the Purpose of the bounty system was made in August 2017. During that time our purpose has evolved. By the narrow definition above, here are the Objectives and Metrics we might define:

- Objective: build a thriving open source developer community
 - Metric: lines of open source code written by bounty system developers
 - Metric: Github repos created by bounty system participants
 - Metric: number of test nodes run by contributors
 - Metric: number of pull requests
- Objective: involve the creative community in telling the RChain story
 - Metric: number and quality of designs and web sites created by contributors
 - Metric: number and quality of interviews and blogs by bounty system participants
 - Metric: number and quality of essays and position papers

[@pmoorman]

- Build an open community around RChain technology
- Recruitment tool to attract talented people
- Distribute REV to as wide an audience as possible (which matters for staking)
 - Commentary: distributing RHOC/REV widely is not a universally agreed goal. one wouldn't just give away stock in a start-up company.
 - At the opposite end some projects airdrop tokens in order to get better recognition, surely rewards for contributions are a better way of accomplishing that.
- Bonus points for helping move forward with running decentralised organisations!

[@jimscarver]

Develop and Demonstrate Cooperation at Scale

- Develop the tools required
- Develop the culture required
- Explore the interplay between Cooperation and Autonomy
- Trustmetric for distributed "power"
- Norms
- Channels
- Working groups
- Decision processes
- Care and Autonomy of Individuals

- Group learning and teaching

[@allanc]

1. Develop the tools and culture to support cooperation at scale
2. Provide our membership with technology based tools
 - Membership web site
 - Tools to guide bounty projects
 - Examples: trustmetric
3. Promote awareness + Participation in RChain
 - Blogs and posts
 - Meetups
 - Counterargument: do we really have the objective or bandwidth to be informing everyone?
 - Is this a good criterion: how many people read this multilingual document? Making RChain a household name?
4. Add to our talented body of members
 - Opportunity for existing members to improve skills
 - Invite new members where our skills are insufficient
 - Encourage initiative within our membership
 - Issue: focus on quality over quantity
 - Value of building community
5. Nurture the body of RChain cultural assets
 - Working groups (eg principles and values)
 - Enhance cultural assets such as discussions of videos and lectures
6. Questions:
 - How effective has our bounty system been in attracting talent into the RChain community- developers and others with specialized skills and experience?
 - How effective has the bounty system been for getting tasks proposed completed by contributions other than the proposers themselves?
 - What is the role of each of the labels in our bounty system? Are they all objectives?