WƎQUEST

Building A Collaborative Resource Sharing 'WeConomy'

white paper (draft V 0.1)

"You never change things by fighting the existing reality.
To change something, build a new model that makes the existing model obsolete."

- Buckminster Fuller

Abstract

WeQuest is a decentralized application (DApp) designed to create a digital, globally connected sharing economy which encourages collaboration above competition. It is designed to help people connect with each other based on their location and their actual needs, to exchange goods and provide services in a more efficient way than is currently the case whilst doing this without the need for money. It transforms the sharing economy into a unified but decentralized Universal Sharing Network, fully owned by its community of users.

Via a simple to follow user interface, directly accessible from any web-enabled device; users can submit geo-located requests for any good or service. These requests are published in a public and globally accessible ledger where they can be discovered and satisfied by local and global providers, in exchange for digital tokens. These tokens can in turn be used to request other goods or services on the platform, and to vote on proposals which will benefit the collective. The token reward is computed by the platform, ensuring a fair and practical economy at a local and global scale.

Introduction

Wellbeing is a fundamental motivating factor behind human actions. It has driven technological development since the dawn of civilization. The combination of global economic expansion and industrialization has played a major role in accelerating both the technological program of wellbeing, as well as its unintended consequences, a concept called a progress trap[1]. Today, the social and environmental impact generated by our profit-driven, industrialized society no longer allows us to continue with business as usual. The challenge, however, is that business-as-usual has become the dominant economic paradigm for the past two centuries.

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[1] O'Leary, 2007

Today, we are living with the aggregate of unintended consequences that has emerged out of the celebrated progress of the industrial revolution. Recently, the planetary boundary model has emerged as a framework to characterize and define the safe operating space for humanity[2]. As of 2017, some of these boundaries are already violated[3], and as the time window for action passes, there is an urgency to make the rapid shift to a new economic system which directly embeds the planetary boundaries in its core valuing system.

To a large degree, our modern world is built upon the wildly successful philosophy that gave rise to the Age of Reason. Today, we take for granted our ability to apply reasoning to every aspect of our life. But before the scientific revolution, heralded by the likes of Galileo, Keppler, Brahe and Newton, religious, political and philosophical dogma were the final word. In many cases, the freedom to think autonomously was not only discouraged, but dangerous. But many centuries of repression had led to an intolerable situation. It left people with a bad taste in their mouths. Once leading voices of science, culture, religion and politics dared to question authority openly, it planted the seed for a robust movement of independent thinking. Once the ordinary person got a taste of the power of autonomous reasoning, there was no turning back. In a span of a century, the Age of Reason radically transformed human civilization. Governments were toppled by revolutions, new countries were forged on rationalist doctrine and the unleashed power of scientific investigation produced the Industrial Revolution. For the two centuries that followed, the unprecedented success seemed unstoppable until in the mid-twentieth century, scientific research began to expose flaws to modern human progress. .

The current economic paradigm is fixated on the concept of progress, but is blinded to the shadow side of unintended consequences. Coupled with the profit driven incentives that lay at the heart of modern capitalism, modern enterprise cannot help but prioritize short termism in a rush to bring technologies to the market. There are two diametrically opposing solutions to the enormous challenges that confront us today. The first is to continue a business-as-usual approach of relying on today's progress to solve the problems created by yesterday's progress. This means applying new technology to fix the problems caused by the old technology. The second is to halt our rate of consumption of the products of progress. This approach calls for us to forfeit short term gains to insure long term survivability[4]. The degrowth strategy favors diversity over productivity. O'Leary suggests that this can be accomplished by balancing our rational, analytic nature with our creative, intuitive one. Wright argues that a major mistake that entraps us in progress is that we assume that what works well at a small scale extrapolates to large scale. History has proven over and over again that this is not the case.

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[2] Rockstrom et al., 2009

[3] Biosphere integrity, phosphate and nitrogen cycle. Climate change and land system change are now potentially violated.

[4] This is a view echoed by the research of psychiatrist and author Iain McGilchrist in his book "*The Master and His Emissary:The Divided Brain and the Making of the Western World*", but also by a growing number of sane voices in business such as leading investment advisor Jeremy Gratham, who sees the need to reel in short termism thinking.

In spontaneous response to the global crisis, we are witnessing the emergence of what environmentalist Paul Hawkens calls "the largest nameless movement in the world"[5]. This is a self-organized movement that includes many ancillary movements such as degrowth, the sharing economy, maker spaces, tinyhomes, local economies, cryptocurrencies, commons peer production, and open source circular economy that envisions building products to last instead of short cycle design-for-the-dump. Underlying the Blessed Unrest is a growing recognition of a normalized psychological imbalance, if not a pathology.

Accompanying the rapid global expansion of progress, in the form of industry, markets, resource extraction, technology and capital, is a particular form of economic thinking. Capitalism is driven by philosophical underpinning of psychological separation. Capitalism has no qualms with exploiting others, but exploitation is only possible if the transaction is devoid any checks for social capital. Money itself is useful because it allows exchange within an anonymous social network. Hence a monetary system that is independent of social capital is a perfect match for a capitalist economy that exploits people and the environment. These operating assumptions are so fundamental that we hardly ever question them. As individual human beings, we form a sense of self during our child development. This is a psychological experience of autonomy and unity which we carry into adulthood. The sense of self naturally divides the world into self and other. Living beings also have a genetically programmed survival instinct used for self-preservation. As we form social groups, this survival instinct generally prioritizes the self and those we form intimate relationships with (such as family /friends), above strangers (others). The Dunbar number[6] tells us that the cognitive limit of the number of stable relationships an individual human being can form with others, is calculated to be 150. Modern economics is based on the narrative of the rational actor whose modus operandi is looking after self-interest. A new term is created to describe the economy dominated by self-bias: the *MEconomy*.
The ideal MEconomy therefore consists of agents whose sole priority is self-interest. One of the interesting system properties of such an economy is that it enables and supports an imbalanced wealth distribution.

Inequality is not accidental, but rather a systemic feature of capitalism that can be reversed only through state intervention[7]. In particular, wealth accrues to those who already have it, giving support to the cliche "*the rich get richer and the poor get poorer*". From the commons perspective, however, there is a belief that the people hold as much power as the state does. However, the caveat is that we must first recognize it if we are to use it.

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[5] Environmentalist Paul Hawken describes the spontaneous emergence of a movement to deal with the global crisis in his 2007 book, *The Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming*.
[6] Evolutionary psychologist Robin Dunbar produced the well known Dunbar number metric named after him.
[7] According to the economist and scholar Thomas Piketty in *Capital in the Twenty First Century (*2013), which provided a detailed wealth analysis over the past 250 years.

We find ourselves enmeshed in a wicked problem colorfully described by the Occupy Movement's simplified 1% vs 99% language. The vast majority of us belong to the "99%", which by definition, lacks capital. Capital becomes a scarcity to the majority when the economic system is designed to funnel it to a minority. Progress in the commons is always limited by the lack of capital, yet this implies the majority is overly dependent on capital alone.

To become effective agents of change, the majority must depend on its strengths, rather than its weaknesses. The 99% demography has vast resources at its disposal, in spite of lacking capital, this means a paradigm shift from seeking capital to seeking resources.
In order to build an economy based on collaboration, the WEconomy, we need to tap into our strengths. The common economic metric Return on Investment (ROI), hence needs to be refined to reflect capital and resource, Return on Capital Investment (ROCI) and Return on Resource Investment (RORI). For the commons to build the WEconomy, the RORI metric allows us to bypass the artificial scarcity of capital and go straight to the resource.

The dynamics of Me and We, of the individual and others, has defined the dynamics of our life since the dawn of civilization. As we transition from a MEconomy to a WEconomy, the greatest problem is our deeply rooted ME-centric worldview. Old habits die hard and most of us have had a lifetime of conditioning within an economic framework that espouses artificial scarcity. Within this framework, nothing comes free and everything has to be fought for. It is a narrative of competition for scarce resources, that leads us to hoard information, patent our ideas and build siloed companies which are constantly facing competition.

We are in need of a unified, holistic platform, aimed at creating a just and more sustainable economy for everyone, one that overcomes the limitations of traditional money by internalizing our aspiration to help others.

A Technological Transition to the Commons

Around the world, emerging technologies are accelerating the transfer of power from centralized institutions to distributed networks driven by voluntary peer-to-peer collaboration.

Recent 'sharing economy' initiatives (AirBnB, Uber, TaskRabbit, etc..) showcase the possibilities of peer-to-peer sharing on a global scale. However, they can be considered as a new middleman between a buyer and seller, extracting value from the exchanging peers. Therefore, these initiatives only represent the *beginning* of a transition in the evolution of the sharing economy, a proof of concept still embedded within a monetary framework.

With the disintermediation possibilities offered by blockchain technologies, we have the opportunity to create a digitally driven world where goods and services are exchanged without unnecessary middlemen, and where rewards and prices are automatically and fairly regulated.

With WeQuest, the power of Executable Distributed Code Contracts (Smart Contracts) is used

to facilitate a transparent and trustworthy peer-to-peer exchange of assets and value, thus reducing the need for trust brokers extracting value from the transactions.

With this whitepaper, we disclose the design for a global system centered on collaboration towards the fulfillment of "Quests", dictated by the geolocalized requests of its users. WeQuest represents the first step of a transition plan towards a globally collaborative future where human and planetary resources are intelligently allocated and exchanged for the satisfaction of everyone's need[8].

Ultimately, WeQuest aims to connect all sharing economy initiatives into a single, universal resource sharing network, <u>owned and operated by the economic participants themselves</u>.

This is achieved through the creation of the first demand-driven marketplace for human needs, where decentralized autonomous cooperatives (DACs) regulated by liquid democracy can aid in the provisioning and where human contribution is valued by a novel and fair valuing system.

One need, one global quest.

For each new need, WeQuest creates an open, decentralized digital collective focused upon global provisioning. Only one cooperative for each unique need can exist within the platform, thus everyone in the world asking for the same good or service will be tapping into the same collective. This avoids the need to create different cooperatives/initiatives, in turn reducing competition.
Information about the geolocation of the need is attached to each request, so that WeQuest is able to function on both a global and local scale (gLocal) and it is oblivious to socio-political boundaries[9].
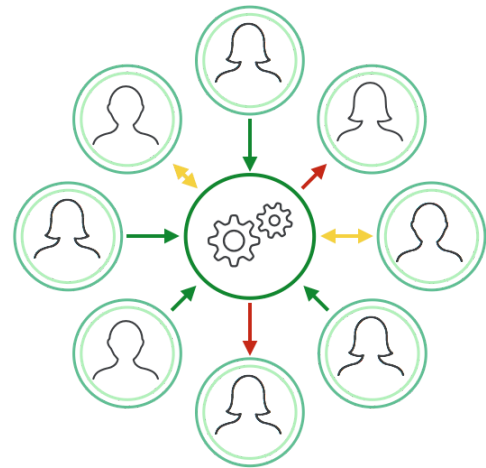
Participation in the cooperative can take three forms: Provider, Consumer or Prosumer (both provider and consumer). The provider satisfies the geolocalized need indicated by the consumers (for instance, by providing their time and car to fulfill a cab ride). The prosumer, on the other hand, might collect fulfilled quest tokens to obtain the exact same service (driving around for 50 km will give her the right to be driven around for 50 km).

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[8]https://en.wikipedia.org/wiki/Post-scarcity_economy
[9] Anything can be requested from the platform, but users will need to respect the established local regulations. Geolocalization and verification of the identity will make sure the system is used transparently and ethically.

A demand driven economy

Instead of advertising services or products that are locally available, WeQuest focuses on globally "advertising" the location of their demands. Close and far away providers can see the collated demands, and are free to choose which one they are willing to provide.

When the request is accepted, a connection between the provider for the resource (i.e. goods and/ or services) and the consumer is made.

WeQuest makes it more convenient and rewarding to choose closeby source products, local neighbouring providers will have a greater chance of being selected compared to global providers, effectively enabling economical re-localization.
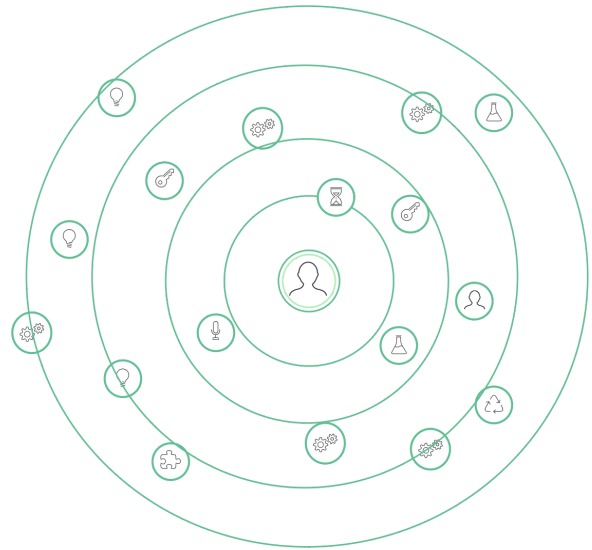
Technologies of Trust

The Ethereum network is used as a public decentralized ledger to safely store and track these requests, to make them visible at a global level, and to help resolving a potential dispute.

The transparency provided by using a public ledger is used to share the information that will be needed to create the best optimization plans. As no information is hidden, this platform is able to create a global collaboration network and perfect competition[10] to fulfill the need at a local and global scale.

The study of the historical transactions data will give great insights on the provenance of the resources, and will also predict scarcity or overproduction. In turn, that information can be used to incentivize or discourage the production at the right time and place, achieving a maximum collaborative efficiency which would have never been possible in a non-transparent, competitive ecosystem.

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[10]Perfect competition: the situation prevailing in a market in which buyers and sellers are so numerous and well informed that all elements of monopoly are absent and the market price of a commodity is beyond the control of individual buyers and sellers.

Tokens and Rewards

In order to create a new valuing system, it is necessary to go back to a redefinition of how to think about value of the human contribution, and how that can be different than the contribution of a machine. WeQuest uses three different means to value human contribution: **Time, Reputation, and Karma**.

- **Time:**
  Time is the most valuable human resource. Everyone is born with it, and it's valued the same everywhere. Fulfilling a service for one hour will grant one hour credit, which can then be used to pay for other human services within the platform. However, this fair amount does not consider the quality of service provided, therefore we are in need of a second layer, that is, Reputation.

- **Reputation:**
  Reputation is assigned at the end of each transaction. At parity of cost and distance, a consumer will likely choose the provider with the highest reputation. It is therefore in the interest of the provider to give the best quality of service in order to maximize his or her reputation. The historical data of the reputation points after each transaction creates a permanent and verifiable curriculum and therefore an online identity based on the quality provided.

- **Karma (Community Points):**
  Providing for something in higher demand means that the contribution has been more valuable for the community. If you have contributed the most to the community, it is fair too for the community to give you back as much. The more positive social impact you contribute, the more "karma" you will have. Therefore, the amount of reward is self-regulated by the platform, starting amount of the local demand for the specific good or service. Karma can then be used to request other products and service "rewards" from other peers on WeQuest.

Smart Barter

WeQuest creates an ecosystem where the digital cooperatives are able to easily cooperate and interoperate. The pizza cooperative, for instance could easily make use of the services of the transportation cooperative, but could also order the ingredients from the tomato, flower and mozzarella cooperative.
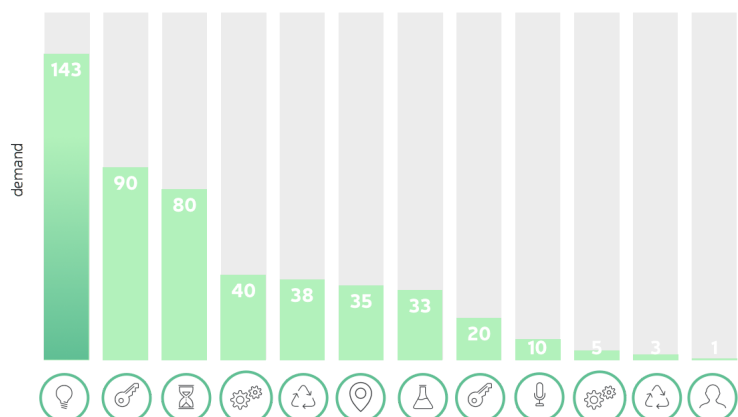
These rules also define how value obtained in one cooperative can be exchanged for goods and services in another.

If the product or service provided is similar, cooperatives can submit merger proposals to other cooperatives, or can simply forward specific requests.

Treasury and Self-Financing

One of WeQuest's core targets is to create an environment that will allow it's cooperatives and the system itself to be sustainable and thus financially viable.
Since the decentralised cooperatives are owned by its stakeholders, each cooperative will have its own democratic governance structure and money flow.
For every service transaction, the cooperative will withhold a small fee in its digital treasury. The exact percentage is democratically agreed upon by voting on a proposal. The more people will request resources from the cooperative, the more the cooperative will have the power to improve or even automate its services.

All collected funds will be digitally held by each of the cooperative's smart contract. Its prosumers will be able to democratically decide how to spend accumulated funds, by voting on user-submitted cooperative improvement proposals (CIPs).
CIPs (cooperative improvement proposals) can be submitted by anyone who uses the cooperative. CIPs are used to assign the social capital collected by the cooperative to the proposal which are believed to be positive for the entire cooperative, making sure that funds are allocated to the improvement of the cooperative, and ultimately to its automation.
If the proposal passes, the requested funds will be assigned to the beneficiary to execute it. Note that the beneficiary might also be another cooperative.
The value in the treasury of the cooperative will be assigned democratically in order to incentivize the use of the collected funds, 1% of the funds held in each cooperative at the end of a calendar month will be transferred to cooperative.
In this way cooperatives are incentivized to assign the funds to proposals every month.
Increasing adoption of our system as a whole will generate an increasing amount of funds, to be used in community-accepted proposals for the outreach and betterment of our platform and services.
Therefore, by means of this built-in value-feedback loop, each cooperative will be built, improved and sustained by its users.

Governance and Liquid Democracy

Each formed collective has its own decision power structure across its participants. Voting on proposals is weighted by the amount of reputation the participant has collected.
The most active consumers will have more voting power over the product specifications and required certifications while the providers with higher reputation will have more voting power

over the allocation of the funds collected by the cooperative. The user can vote directly to the proposal, but can also choose to delegate his reputation to anyone else within the same cooperative. The delegate, in turn, can choose to further delegate his reputation (together with the reputation which was delegated to him). A liquid delegation structure easily emerges, where decision on proposals can be taken by the most active and trusted representatives in the collective. At any point, the user can decide to take back his delegation and assing his reputation directly to the proposals, creating a the opportunity fluid transition between direct and delegative democracy.

Token sale and distribution

The purpose of the ICO is to collect funds to power up the first digital cooperative. Launching partners will acquire voting power on the funds, while ICO participants will pre-purchase exchange tokens to contribute to the platform obtaining any goods and service from the platform and its . This means the control of the collected funds is in the hand of the community.
The tokens sold during the ICO are the only way to obtain access to a good or a service via our platform.
The total amount of available WeQuest tokens will be created and distributed during our crowdsale.
90% of the Ether collected during the ICO will be stored in the WeQuest cooperative, and will be accessible using the same CIPs mechanism as the other cooperatives. The final 10% of the funds are reserved within another smart contract under the democratic control of the Maslow foundation and launching partners.
This means that WeQuest will be governed the same way as any other cooperative, with the exception that the funds are not collected from the cooperative transactions, but via the ICO. It therefore represents the gateway from the old economic system into the new economy.

Launching Partners and Advisory board

In order to provide a greater spectrum of goods and services at launch, we have already established partnerships with existing timebanks and sharing economy initiatives. Orders sent to our platform will be picked up by these existing initiatives, without needing to access their own application.
Further, the application will greatly benefit from the support of governments. WeQuest will base its identity verification contract on Discipl[11], a frontrunning project initiated from within the Dutch government, which shares the same vision and core values. Discipl is distributed-ledger agnostic, but favors feeless distributed ledger platforms like IOTA[12] and adds a linked data layer with fine grained but entirely self sovereign access control. With Discipl all transactions on the platform are openly auditable whilst preserving privacy and new digital human rights, so it will also ensure an ethical use of the system.

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[11] http://www.discipl.org
[12] Discipl in fact collaborates with the IOTA Foundation, http://www.iota.org

Within the Discipl ecosystem, self sovereign identity services will be developed enabling the possibility for a secure link between a WeQuest account and a government-validated identity. This is necessary in order to establish a higher level of trust in the system and to optimize fiscal and legal compliance of our platform. Moreover, Discipl will help the WeQuest platform implement conformance to a standard for decentralised public services and governance inspired on Non Violent Communication and Convergent Facilitation[13], which is an alternative consensus method all about identifying needs and efficient collaboration to fulfill them with a solution that works for all.

WeQuest Use Cases

Although the platform has been designed to fulfill all kind of request, we envision the following use cases to shortly emerge during early adoption:
- Local Economy for small communities / Refugee camps (services/time banking)
- Circular Economy (food production and waste handling)
- Decentralized Manufacturing (3d printing of different parts, Cosmo-localization)
- Smart Cities
- Unified Transportation Network (unifying multiple transportation providers under one request)
- Decentralized Power Grid (reinvesting income into coop)
- Land as commons

Conclusions

WeQuest is designed to create an all-inclusive, digital sharing economy, where everyone can participate by providing their time and knowledge. Contributing towards the most important needs for the local communities yield the highest rewards. Without knowing each other in advance, users will be able fulfill demands using reputation-based trust to exchange time, goods and services in the form of digital tokens.
Competition is solely based on location and quality of service (reputation), thus independent of race, nationality, gender, social class, religious beliefs etc..
We expect that adoption of this system could dramatically improve the way we interact with the economy, and with each other.

Acknowledgement to Co-creators

Special thanks goes to everyone who helped shaping this concept to this stage via countless conversations in course of the last three years.

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[13] See https://youtu.be/I12WUUD96Es and Miki Kashtan, Reweaving Our Human Fabric: Working Together to Create a Nonviolent Future, 2015