

Q

A decentralized worldwide distributed cryptocurrency

[Q.org](https://q.org)

Note: This is a concept paper, meant to share ideas and start up discussion on how to create the final version and whitepaper. Nothing is set in stone and everything is open for discussion.

Abstract: Q is a novel decentralized cryptocurrency that incentivizes adoption by giving every person in the world \$1000 USD worth of Q for free. Through Proof Of Person (POP), we can prevent duplicate claims. Persons can verifiably prove themselves through the contactless chip in their international passport while keeping their identity private. Most developed countries have an international passport issuance rate of 50-80%, with a worldwide total of around 1 billion. Proof Of Person enables a vast new world of possibilities. For example, Q could enable a Universal Basic Income (UBI) distribution by optionally sharing transaction fee income with those that need it the most. Q will initially maintain a decentralized 1 to 1 peg with the United States Dollar, ensuring its stability. Q will probably be launched as a token and smart contract on Ethereum.

THE ISSUES WITH CURRENT CRYPTOCURRENCIES

The reasons why crypto has failed to reach mass adoption.

No proper distribution

For a currency to have value, and for stores to accept it, you need adoption. It's a chicken and egg problem. However, we just need to look at history for a solution: After World War II, the value of Germany's currency was destroyed as it entered hyperinflation. This was solved by issuing a completely new currency and giving every German citizen some of this currency for free. As a result, the currency was quickly adopted and Germany successfully re-bootstrapped its economy. To achieve worldwide adoption we can take this lesson from history and employ a similar execution.

Price instability

Most cryptocurrencies are extremely volatile. It's extremely impractical for stores to continuously update their prices. To solve this, we need a cryptocurrency that is price-stable. There are already several successful fully decentralized stablecoins running on top of the Ethereum network. We can use the same system for Q, initially pegging its value to the United States Dollar until it is no longer necessary to do so.

Governance issues

Many cryptocurrencies suffer from infighting and civil war. There are big divides between miner and user interests. With Q, users can simply vote on issues due to the fact that we have proof of unique person. We have to make sure however, that the fundamentals of the currency cannot be altered, as we don't want the majority decide the fate of the minority.

Affordability

The more popular a cryptocurrency is, the more expensive and exclusive it becomes. While early adopters experience financial gain, late adopters are left on the sidelines due to an increasingly big barrier of entry.

Branding

The name of a currency should be short and simple. Many years in the making, Q has both @Q (twitter) and [Q.org](https://q.org), creating instant brand recognition.

INCENTIVIZING ADOPTION

\$1000 USD worth of Q for everyone

To incentivize adoption, we will give \$1000 worth of Q to every person that successfully goes through the Proof Of Person process. \$1000 is sufficiently large for those without an international passport to be incentivized to obtain one, and to motivate governments of poor countries to make sure its people get passports.

Referral reward system

To incentivize fast and viral adoption, we want to reward those that invite others. For every person you invite, you get \$1000 USD worth of extra Q. Q is invite-only, and you will not be able to join without an invitation code. Anyone that's invited, can invite an unlimited amount of other users. This will incentivize those with a large social network to inform others about Q and share their invite code. The referral system will be done through a smart contract so it can be done in a completely decentralized fashion.

- Rewards will be reserved but will only be paid after the invited user successfully goes through the Proof of Person process.
- You only get rewards for the persons you invited. You do NOT get rewards for the invites of your invites.

PROOF OF UNIQUE PERSON

E-passports

RFID-chipped travel passports are the most widely circulated document in the world. Adoption rates became especially high in recent years. The USA is near 50%, and European countries are near 70-80% or higher. Worldwide, RFID-chipped passports are around 1 billion.

RFID-chipped passports support NFC (Near Field Communication). This allows us to create a Proof Of Person by verifying the passport authenticity with the signing authority. Through a mobile phone app, this can be done in a user friendly way and without anyone needing to receive your passport details, ensuring your privacy.

Mobile phone support

Android phones support RFID scanning for many years now. Apple also added support several years ago, but as of IOS12 will still have to enable some specific features to app developers. We hope the massive demand will get Apple to open up their RFID capabilities, or we predict a flight to Android phones.

Video verification

To prevent passport abuse by third parties, we can add an additional decentralized video verification system. This will ensure that the person in possession of the passport matches the passport picture.

ECONOMICS

Paying \$1000 USD per person

The current cryptocurrency market cap is around \$200 billion USD, with users estimated to be in the tens of millions. However, its global adoption is limited. If Q succeeds in being adopted by 1 billion users, the network effect should easily take Q's market cap above \$1 trillion USD. That would equal \$1000 per user.

Gradual release

We will not release Q1000 overnight, as this would have a severe impact on its price. Through decentralized smart contract methods, we can do a gradual release so Q retains its value. As user wallets slowly fill up with more and more spendable Q, the incentive to install a wallet for those that haven't yet, will steadily grow.

1Q = 1USD

Decentralized stablecoins such as DAI/MakerDAO have proven that a fully decentralized peg to the United States Dollar is possible. We intend to use a similar decentralized mechanism to maintain a peg of Q1 to \$1 USD.

Global acceptance

While a massive amount of people having a large amount of Q should be incentive enough, some stores might need additional motivation. We will incentivize store adoption through our users and a global outreach program, and maybe even a reward system to incentivize stores.

Hard limit

What happens after 1 billion users? Do we keep issuing Q to the next 6 billion and every person that's born after that? Or does Q need a hard cap? If we keep issuing Q1000 to every newborn forever, this might incentivize overpopulation. These are questions we still need to decide on, but presumably, more users will mean more value. If we have 1 billion users and a market cap of \$1 trillion USD, then 6 billion users could make a market cap of \$6 trillion USD possible. It's also possible that 1 billion users will already give us a market cap much higher than \$1 trillion. What do we do when we reach \$1 trillion value at or below 1 billion users, after every Q1000 is distributed to all users? With referral / invite rewards included, that would mean a market cap of maximum 2 trillion USD. We might need to build in a mechanism that will unpeg Q from the United States Dollar after it reaches a 1 or 2 trillion market cap. If the United States Dollar loses value for whatever reason, this process would even be accelerated, as it would mean that Q would reach a 1 or 2 trillion USD valuation much faster.

Underlying value

While the network effect might be sufficient to give Q its necessary value, we can create additional value by selling a preset percentage of Q on the open market in return for cryptocurrencies. These cryptocurrencies will then be stored inside Q's smart contract as a store of value, effectively underwriting it. This can be done in a completely decentralized fashion. To help bootstrap the economy and give Q immediate value, the creators of Q can already underwrite Q with other cryptocurrencies on the day it is launched. The underlying cryptocurrencies could be restored by having users burn their tokens, although we'd expect Q to have a considerable premium above the value of the underlying tokens, so burning tokens would never be worth it.

Alternatively, we can create a second layer with a new "Q Staking" token with a much more limited supply than Q. These staking tokens would entitle holders to a percentage of transaction fee income and could additionally be

underwritten with other cryptocurrencies. This would also enable a similar Q -> Q Staking scenario as in DAI -> MakerDAO, which can enable Q Staking token holders to enable loans to Q holders and will enable 1 to 1 USD price pegging.

Ethereum - Sharing staking rewards and voting

With the method above, Q's smart contract could potentially collect a substantial amount of Ether. We can find a way to have Q participate in Ethereum's Proof Of Stake, and distribute the rewards across all Q holders. Additionally, Q holders could vote on Ethereum's features. We need to decide if we want to make staking reward income proportional to the amount of Q someone holds, or if it should be distributed to every person equally. The same question applies to voting on Ethereum's features.

UNIVERSAL BASIC INCOME

A unique opportunity

Thanks to its Proof Of Person system, Q will have verifiable proof that a person does not have more than one wallet. This enables completely novel and revolutionary applications.

Redistributing transaction fees

Q intends to redistribute the transaction fees it collects, to those who need it. By default, we can enable users to pay a 10 cent (or whatever they want) transaction fee. This 10 cent fee can be enabled by default, but can always be turned off, as this system should be completely voluntary and optional on the user's end.

Those that are in need, can send a request to Q's smart contract to ask for a portion of transaction fee income to be sent to them. This portion will be sent live, as transactions take place, and will not come from a fund or buffer. If Q achieves global adoption, we estimate yearly transaction fee income to be in the billions of dollars. This might substantially help those in the world that need it, in a fully voluntary way by all participants involved.

Q's smart contract does not discriminate or know your identity, and will rely on the honesty of users to not abuse this function. Obviously, if most users start asking for assistance, the amount paid out will be much lower.

Alternatively, users could choose to send transaction fees to a charity of choice, but we'd like to think that in most cases it is better for those in need to receive funds directly.

Direct tax distribution

Another option is for governments to distribute tax income directly to their people, instead of creating public services. This will eliminate a lot of wasteful spending.

GOVERNANCE

Immutability

To guarantee Q's immutability, we need to make sure its fundamentals cannot be changed after launch. We need to choose a solid base layer for Q to run on. We want to avoid re-inventing the wheel or dealing with the full impact and responsibility of running our own base layer. The Ethereum network is one of several options that can be considered.

Protection from government abuse

With the Proof Of Person system, the biggest risk is that a government would start issuing fake international passports. We can create a system that can temporarily block rogue governments in a decentralized fashion.

OTHER NOVEL APPLICATIONS

Wallet restoration

Losing access to your cryptocurrency wallet can be a risk. Proof Of Person can be implemented in wallet software as an option to allow for decentralized wallet restoration. However, the up and downsides will need to be carefully reconsidered.

Selectively disclosing passport information

Optionally, a person could disclose his passport information or a subset thereof for Know Your Customer (KYC) or other purposes. This eliminates a lot of unnecessary paperwork.

Voting

With Proof Of Person, governments can enable representative polling or voting for those that live in a certain area. This would enable a more direct democracy.

Signing

You can sign documents in your name, in a foolproof fashion.
