# Intercoin

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# WHAT IS INTERCOIN?

**Intercoin** is the next step in the evolution of money. It enables communities around the world to issue and manage their own currency-as-a-service (CaaS), to circulate among their local population. This leads to stronger communities, greater sustainability, less poverty, and more productivity. Intercoin can be integrated into any mobile or web application, and will allow people to pay one another in local currency.

Today, nearly all crypto-currencies are global tokens. Each currency lives on a global blockchain, requiring global consensus about the transactions everyone has made. By contrast, intercoin is architected like the internet — a global network composed of smaller networks, each of which handles its own affairs.
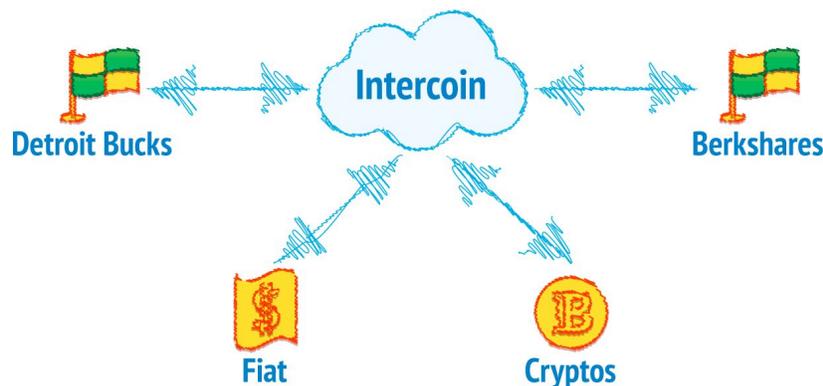


**Figure 1**

Today's crypto-currencies have led to improvements in global, internet-based payments. However, due to their one-size-fits-all nature, these currencies don't lead to much innovation in local commerce. Many of them are designed to be fixed in total amount, creating scarcity. As a result, their value against local fiat currencies rises, leading people to hoard them. While this may make global cryptos a good store of value, it does not make them the best medium of exchange. In addition, global currencies are not adaptable to local community needs. Their existence doesn't improve local economies or alleviate poverty any more than the existence of gold.

The Intercoin platform fills this gap. Local currencies already exist in various places (Berkshires, Bristol), but they are not very advanced. With Intercoin, any community will be able to issue its own currency, and with far more capabilities, including Micropayments, Community Fundraising and Basic Income for community members. The Intercoin platform will help open up a world of innovation in local commerce and governance.

# ECONOMIC ANALYSIS

## Local currencies

Consider a payment system, such as PayPal or Venmo. People can "deposit money" into the system by sending money from their bank account. In exchange, they get a "balance" in their account, which they can use to pay others, such as local merchants. The recipient may at some point "withdraw money" from the system, causing the system to send money to their bank account. To support these "cash-outs", the payment system must keep money reserves, in some form that is readily convertible to the currency of the recipient who wishes to "cash out". Inside the system, payments with internal currency are frictionless, and often carry no fees.

Intercoin technology enables communities to release their own local currency, to behave much the same way. Intercoin acts as the bridge currency between every **Community Coin** as well as external ledgers such as fiat and crypto. People who wish to engage in commerce within some community simply deposit Intercoin to the **Community Network**, by transferring them to the community's account on the global Intercoin Network. In exchange, the local Community Network automatically issues them local currency. The local currency consists of internal tokens (liabilities) of the community, redeemable for Intercoin (assets) held on reserve.

In this way, people can "cash in" and "cash out" of a local economy, trading Intercoins for local Community Coins, and back (see Figure 2).

Community members and businesses will be able to pay one another for goods and services using the local currency. Community apps will be able to integrate the community's currency the same way they integrate payments with Stripe or PayPal.

Over time, as more people start to use the currency, merchants may start to cash out less often, as money circulates internally within the system. Businesses may begin to pay their employees in this currency. At this point, the community reserves are magnified by a multiplier, and it can exercise discretion with regard to monetary and fiscal policy, for example issuing more internal currency (this is similar to how fractional reserve banking got started).

**Market Maker**

Dollars

Intercoin

John

Cash In

**Market Maker**

Euros

Intercoin

Jane

Cash Out

**Intercoin Reserves**

**Detroit Bucks**

City of Detroit Local Commerce

John    Bob    Sarah    Liz    Jane
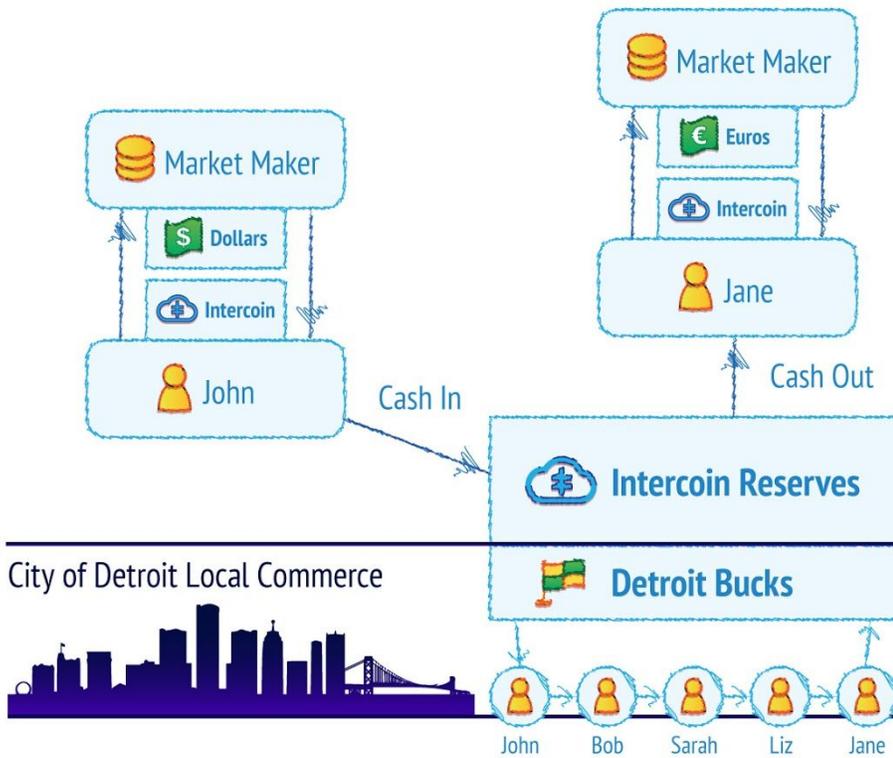
People obtain Intercoin from market makers on exchanges.

They deposit some intercoins with a community which keeps them on reserve, and in exchange the community blockchain issues their account some shiny new community coins.

Eventually someone withdraws intercoin from the community blockchain in exchange for cashing in and destroying some community coins.

**Figure 2**

# Benefits of local currencies

If you ever came to a casino to gamble, you probably bought casino chips near the entrance. After doing your thing with the chips, you cash them out. Because outside the casino, the chips are hardly accepted as payment (except as a curiosity or souvenir) few people leave the casino with significant amounts of chips without exchanging them for money they can spend outside. The people leave, but the chips always stay in the casino!

For this reason, communities that issue their own currency never run out of money. Consider what happens when a city like Detroit or a state like Illinois goes bankrupt or experiences a depression: they have less and less dollars circulating within. When automation allows one worker to do the work of ten, fewer dollars are paid to workers and more dollars leave the community (to pay shareholders or be re-invested elsewhere by large corporations).

Under Capitalism, the traditional response to this has been for people to leave the area in search for opportunities elsewhere (perhaps sending remittances back to their family). Thus, a once vibrant city may be disrupted by shifting market forces before it has a chance to reinvent itself. This can also be seen when countries in the south of Europe (Greece, Spain, Italy and Portugal) joined the European Union and lost their ability to circulate their own currencies. They started losing Euros faster than the Euros arrived, and this deficit led to austerity measures, a shrinking economy, and other downward spirals.

But with a local currency, people can employ one another even if they lack the amount of Dollars or Euros of neighboring communities. Residents and visitors use the money at local businesses, which in turn can pay their employees. In the Berkshires, an unemployed plumber with time on his hands can fix a leak in exchange for Berkshares, which the Berkshares will not run out of any more than a casino will run out of chips. (See Figure 3).

Local currencies also allow communities to issue Unconditional Basic Income (see below) to permanent residents. This mitigates the need for people to move out of the communities (slowing down their economy further), or move far away (suburban sprawl) and commute for long hours to e.g. sit in a chair. Thus, stimulating local economies can limit wasteful consumption of fossil fuels and other resources, like millions of people's time.
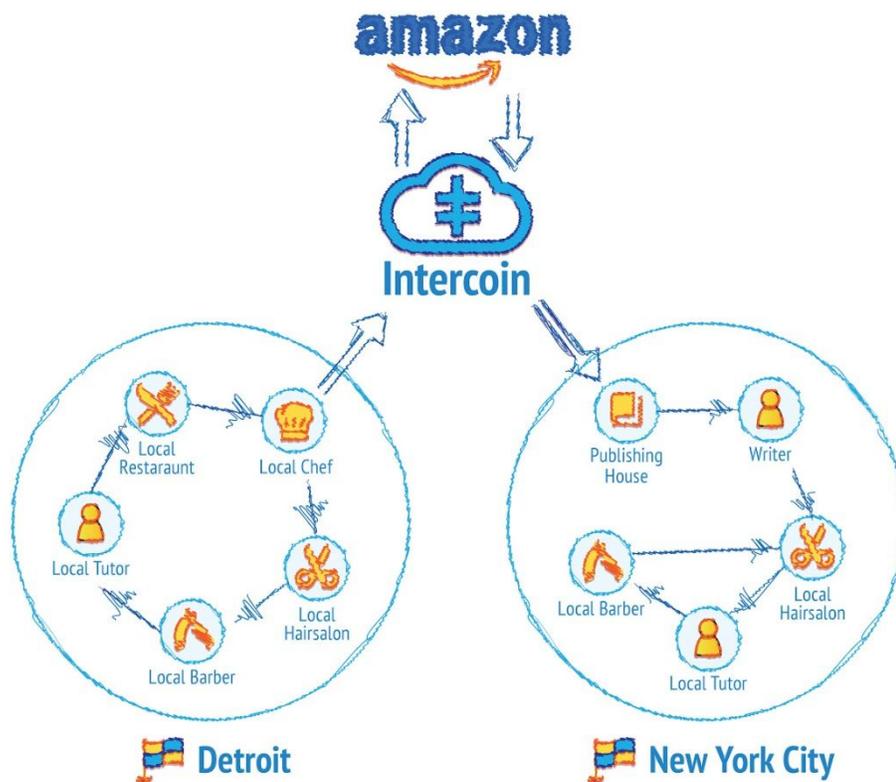
Each community coin circulates inside its own community, going round and round until it is redeemed for intercoin. Intercoins are traded for other currencies by market makers and community blockchains act as gateways which exchange them for local community coins, and store then on reserve for cashouts.

With this architecture we are able to better understand how the money is earned and spent overall in their community.

**Figure 3**

# Intercoin's advantage

Global crypto-currencies have lots of competition. Today someone searches with Google, tomorrow they may use Bing. Today, they use Bitcoin to send money, tomorrow they may use Litecoin. Their value, therefore, is always at risk. Some have wondered whether it's all a bubble.

By contrast, Intercoin is designed from its inception to enjoy very real demand. At the core of this demand is the uniqueness of each local currency within its own community. Communities use the Intercoin Currency Kit to issue their own currency, and integrate it into their local Community Apps. Each community promotes their Community Coin internally to its members, until it is widely accepted in exchange for local goods and services. That network effect of being widely accepted is what makes the Community Coin valuable in the local community.

Figure 2 showed how each Community Network keeps Intercoin on reserve, in order to cash anyone out from the local currency into other currencies. When merchants want to import goods, people want to make online purchases, travel or invest abroad, they will exchange their local currency for Intercoin, which can then be exchanged into anything else.

Thus, Intercoin represents the "asset side" equal to the value of all the local Community Coin economies. When community members, visitors, foreign investors etc. buy local Community Coins, they deposit Intercoin with the Community Network. This will always create demand specifically for Intercoin, as it must be held on reserve. This is similar, for example, to how the US Dollar is used held on reserve by banks throughout the world, creating demand for it as a reserve currency.
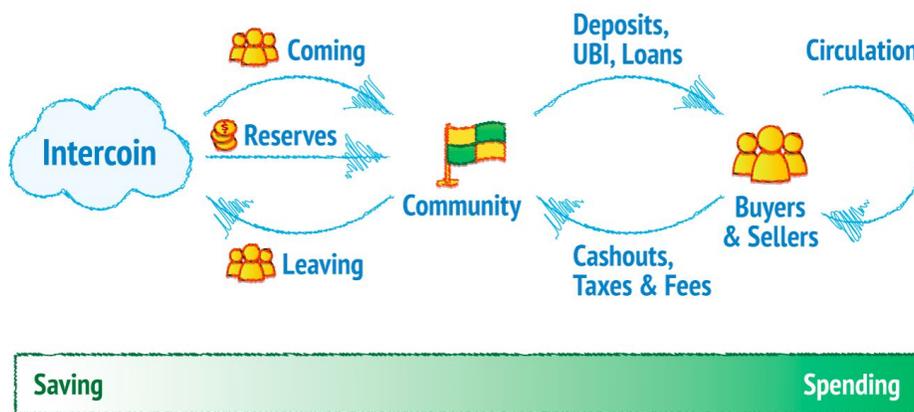


**Figure 4**

# Adoption

The value of money is that someone will accept it in exchange for something you want. The more people within a community accept it, the more valuable money becomes, and acceptance increases further. This is the network effect, and it is stronger in local, tightly-knit communities than in sparse, global communities. That is why new things can quickly spread throughout a local community (virality).

Apps experience a similar network effect. The more of your friends use Facebook / SnapChat / WeChat, the more value you get out of the app. Thus, you are more likely to come back and use the app over and over (engagement). In fact, today, money is a feature added to social apps. Everyone from Facebook Messenger to Apple Messages has integrated easy-to-send payments in their social apps. People come for the chat with all its extensions, and along the way may send some money.

This is how adoption of a new currency happens. If someone sends you money via PayPal, you need to open a PayPal account to get it. If you want to pay someone (a friend or a merchant) with PayPal, you ask them to install it. The more people have a PayPal account, the more frictionless payments with PayPal become. And thus, more businesses begin to accept it.

Most global crypto-currencies are like "digital gold", because they have the same scarcity through all communities. Throughout history, people preferred to circulate local representative currency such as local banknotes, instead of the heavy gold they represented. This is referred to as Gresham's Law, but was known all the way in the time of ancient Greece.

As developers of some pretty popular apps, and who spent years building a platform for communities to run their own apps, we know a thing or two about user adoption. Launch, collect metrics, iterate. We have studied at length, and experienced firsthand, what features enable apps to be more viral, engaging, and increase user retention.

Communities that use the open-source Qbix Platform can install social apps built by us or from other, third party developers. These apps will have intercoin built in as a payment method alongside Stripe, PayPal and other payment SDKs. The intercoin allows people to pay in the community's local currency, seamlessly. All the prices are conveniently denominated in the user's home currency (dollars, euros, yuan, etc.) but internally, the money is being moved by the Intercoin system, hosted by the community's own network.

But money itself is currently a pretty "dumb" feature. When used in local communities, it can be made a lot smarter, to enable "money-based applications" such as Local CPI, Basic Income, and Fundraising.

# BEYOND MONEY

Below are just some of the innovations that finally become possible thanks to intercoin's digital local community currencies. As we roll out our platform and Currency Kit, more applications can be developed by teams around the world, and installed by communities. One of the goals of intercoin is to provide a base for innovation with local money and local governance, for the benefit of mankind.

## Local CPI

Different communities evolve differently. Some may be in a bustling metropolis, others are remote villages. Some may be close to an aquifer, others might be in the desert. All this leads to a different cost of living from place to place. Necessary goods (like water) have different cost per person, but everyone needs to consume them.

Current global methods of calculating the Consumer Price Index are [crude and indirect](#). Having a local digital currency would allow the community to have much more insight into the prices of things. Stores or manufacturers could tag certain products with certain categories (e.g. "food" or "cleaning supplies"). During checkout, information about how much was spent on each category could be anonymously added to the community's aggregated ledger of transactions. From there, a deeper analysis can be done by various apps and products, who may hire data researchers to identify trends and make suggestions.

This kind of insight into the community's buying aggregate behavior can help communities make smarter decisions. The community owns the data, but could give others access to it on a limited basis. It could provide daily reports for its own residents, who can see the distribution of money being spent in the community. It could also be used to respond to price signals. Increases in price could be analyzed with neural networks to see whether they indicate a cartel, or a genuine phenomenon such as a shortage. All this becomes possible when each community issues its own currency.

# Daily Basic Income for "Food"

**Provably Random Poll:**
What % of median spend?
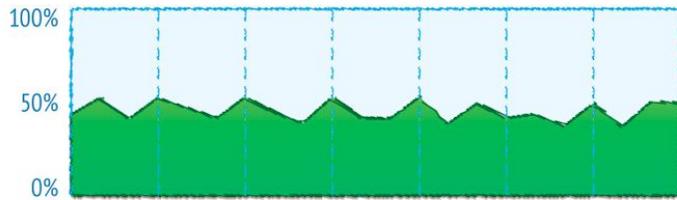
**Consumer price Index Report:**
What % of median spend?

Shortage!
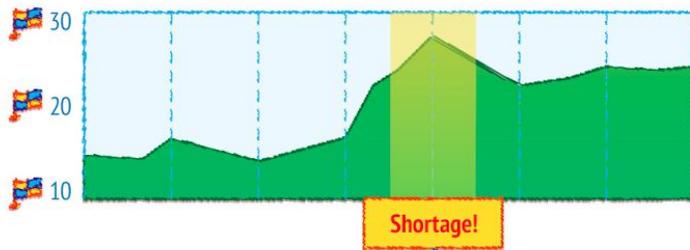
**New coins issued to all members for "food"**
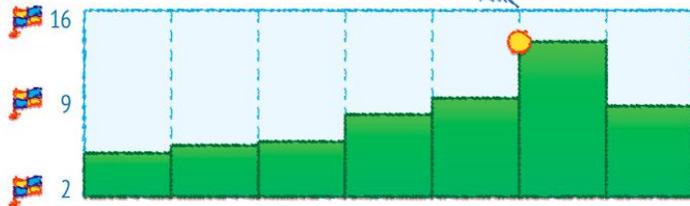
Basic Income is just one possible application on the community blockchains.

Merchants tag some of their transactions with tags such as "food".

Every day, the local blockchain calculates the median amount X spent on each category and presents a report.

Members are randomly polled as to what level of Basic Income should be issued as a fraction of X.

Result: everyone can afford basic necessities the day after a shortage.

In this way, communities can also choose what transactions to tax, to offset the Basic Income, or let their currency undergo mild inflation.

**Figure 5**

# Basic income

Basic Income is a "holy grail" of social safety nets, eliminating much of the bureaucracy and perverse incentives associated with means-tested welfare (which is dominant today). The idea is that there are [necessity goods](#) which everyone would attempt to buy basic amounts of even if times were tough, such as food, water, shelter, etc. Thus, each member of the community – rich and poor alike – gets a certain amount of money every day, to save or spend on necessities. This can virtually eliminate the food, water, health insurance insecurity of the [precariat](#), and free them up to be more productive and follow their dreams rather than barely keeping their head above water. As we know, a person with a larger poker stack has a much better potential to win the tournament. Safety nets allowed people like [JK Rowling](#) and [Jan Koum](#) to create billion-dollar properties with Harry Potter and WhatsApp, respectively. Without them, they might still be working at a dead-end job, waiting for their social security paycheck.

Basic income enjoys support from across the political spectrum. Liberals and progressives like that everyone pays to support true safety nets that preserve people's dignity. Conservatives like the idea of eliminating perverse incentives in means-tested welfare and minimum wage laws that keep people from getting a job. Libertarians like the freedom of choice that consumers have in choosing how to spend their money, as well as the lack of "big brother" means testing. It has been advocated by everyone from [Milton Friedman](#) to [MLK, Jr.](#)

Local community money powered by intercoin is smart enough to [implement basic income](#). From the outset, it is designed to tolerate inflation of local community currencies, without lowering the value of the main intercoin blockchain. As prices of goods rise with respect to the local community currency, local vendors simply get paid larger amounts. This, in turn, affects the exchange rate of the local currency to the global intercoin. Consumers don't have to worry about the details when shopping – prices can be easily denominated in a familiar currency such as dollars, or intercoin. Under the hood, the community currency can be used to implement [local fiscal policy](#) as a community, including how much to issue for Basic Income.

Basic Income can only really work if each local community controls the amount it issues, and to whom. Both features will be implemented out of the box in the Community Kit. Our platform already allows communities to determine who is a member and who isn't. This was designed to prevent overload of the community web resources, such as [denial of service](#) or [sybil attacks](#), but can be easily adapted to other resources, such as money.

Using the [Governance](#) feature, the community could determine the product categories and fraction of the Local CPI to issue to everyone as Basic Income. Then, every day, people would receive that money based on the previous day's costs. This would, for example, allow everyone to buy food after a shortage, and then the community could figure out what to do with the excess money later, including removing it from circulation via taxes and fees. People have asked for [crypto-currencies supporting Basic Income](#). We have a chance to actually do it right!

# Identity

After reading about huge breaches of identity information ([Yahoo](), [LinkedIn](), [Equifax]()...) one might start to think there must be a better way to authenticate with various communities and services. Cryptography offers just such a way.

Qbix, the company launching intercoin, has developed an [open protocol for identity]() that's compatible with everything else out there. It lets people use native apps running on their personal devices to securely authenticate with any website. Unlike password managers, it eliminates the need for passwords completely. Passwords are "something you know", and if someone else knows it, too, they can get into your account. It is far better to store large private keys on personal devices, which you secure with a passcode or biometrics. These devices now have [secure storage areas]() that even hackers [can't access](). Other devices can be authorized with QR codes or Bluetooth, while each private key never leaves its device. Qbix builds on recent innovation in this space by venture-backed companies such as [Keybase]().

The Qbix Auth Protocol goes much further than just authentication, allowing each user to manage their [identity across communities]() without being [tracked]() by third parties. Your personal information and address book is kept private on your phone, rather than being [given out]() to every website to "find your friends". When a friend joins a community and wants you to know, you get a notification. You can see your friends discovering new websites, restaurants, and other communities, and get an [instantly personalized experience]() when you arrive, without the site knowing anything about you. All this "magic" has already been implemented as part of the open source [Qbix Platform](), ready to use by communities, websites and app developers.

This identity solution can be used with existing websites such as Facebook. Just like Bitcoin, it eliminates the risk that some third party may deny you permission to use your own identity. It can even be used with emerging protocols that [do not require a global blockchain](). This achieves a further level of decentralization [described]() by Vitalik Buterin, founder of Ethereum.

Ultimately, over the last several years at Qbix, we have finally solved all the architectural issues required to give people control over their own identity and data, while simultaneously providing a social experience across communities. It is part of our mission to empower people and unite communities.

On top of this, we have already built social apps that any community can install, and any user can seamlessly use with their friends across communities.

It is now time for intercoin build on top of these cryptographic innovations to implement [payments across communities](), [governance]() within communities, and much more.
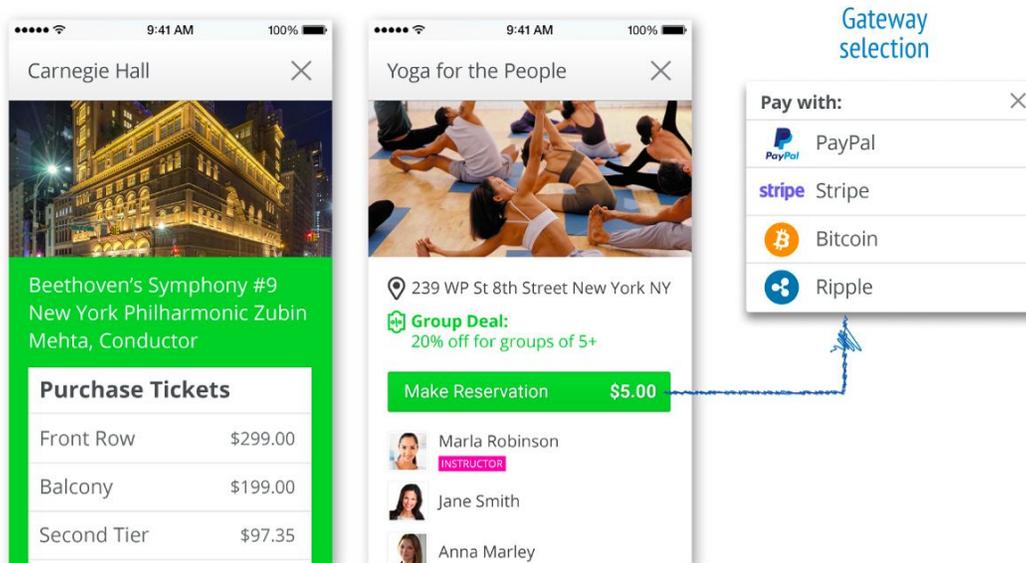
Gateway selection

Note that prices are displayed in the user's preferred currency ($).

People make purchases seamlessly in apps for local merchants, venues, instructors and other services.

Everyone is paid out automatically, in the local currency, behind the scenes. Accounting apps and other financial software can easily integrate with each user's financial history.

**Figure 6**

# Governance

As people form organizations, they need a mechanism to arrive at a consensus before the organization takes action. Many mechanisms have been used, including various types of direct democracy, representative democracy, and so on. When it comes to community policies regarding its internal money supply, local ordinances, or projects to fund as a community, the mechanism starts to play a vital role in how the community evolves.

For example, in US Presidential elections, if the ballot switched from First-Past-The-Post mechanism to using the Approval Vote, it would have far better statistical properties as well as real-life benefits: no spoiler effect, less negative advertising, and less division and hatred in the community after the election. And the best part – such innovations can be done on a local level without needing to wait for the rest of the country.

Crypto technology makes a huge difference in this area. Without it, voting has remained in the stone age: in 2016 many US voters spent hours in long lines, experienced equipment failures, and top it all off their votes went into government databases that keep their names, birth dates, addresses, voter registration details and social media posts. This information on 200 million voters was subsequently leaked on the internet.

Having a local blockchain with intercoin, enables all kinds of great governance mechanisms to be implemented. You can pay from your phone (just like you do with your app). But you will also be able to vote for your phone, securely and privately, without anyone knowing how you voted, yet being able to actually verify that your vote was counted.

You will be able to see at a glance how your communities are doing, see what the cost of necessity goods has been in the last few months, and have your voice heard. You'll see a breakdown of how the community feels about an issue, and you'll be able to make decisions as a community that are implemented the very next day (at least when it comes to fiscal policies around the local currency).

All this will be possible without the community needing to hire bureaucrats with an extensive knowledge of statistics, pollsters, and so forth. With the Governance Kit, it can all be done out of the box. Scarcity can be enforced and costs can be imposed with intercoin where it is needed to prevent abuse.

Many more innovations can be developed over time. For example, we plan to implement Provably Random Anonymous Polling, which has better statistical properties than voting. It doesn't have issues with voter turnout or gerrymandering. Third parties will be able to build on this all with further innovations. Communities will make their own choice as to what to install.

# Fundraising and patronage

One of the most exciting areas where intercoin can increase innovation is fundraising. In the last decade, there has already been a lot of innovation around crowdfunding, from [Kickstarter](#) to [Patreon](#) to [AngelList](#). And now, we have [token sales](#) as a way to fund projects.

With intercoin, these processes can be democratized, allowing anyone to fund a project. Kickstarter, Patreon and GoFundMe are centralized web sites which facilitate a transaction or subscription that could easily be automated with the currency itself. Token sales may require registration of securities, but people can fund projects for their community on a different basis than getting returns.

People could indicate their desire for certain apps or projects, and pledge money (or future subscriptions) to those who develop those apps or implement those projects. Developers and teams can take on the challenge, knowing that the money has already been pledged. Each project can go through different stages – design, architecture, etc. – in which the teams compete and are judged by the people who pledged the subscriptions, or their elected delegates / experts. (See [Governance](#)). Teams that are selected receive funding to complete the subsequent stage. Once the final results are out, those who pledged automatically get a (discounted) subscription to the result. And the fruits of the entire process can be public, including the projects which were not selected.

This type of funding mechanism can also be used to fund pharmaceutical drug research and medical breakthroughs using the same mechanism as [open source software](#) is developed today. The patronage model is how science has been done for centuries. Public ownership will allow researchers to build on one another's work, by putting the patents in the public domain, instead of the current model of mostly private investment and adversarial patent portfolios. When [everyone in the world is allowed to collaborate](#), lots of problems can be solved from the long tail that is not otherwise "lucrative" to invest in.

# LEGAL CONSIDERATIONS

## Securities Laws

Unlike the intercoin token itself, the local currencies are not likely to be considered securities under US law. Especially if the currencies are steadily inflating, there should not be a reasonable expectation of profits over time. Rather than being a store of value, the currencies are a medium of exchange.

If local transactions within communities are always done as payment for goods and services, the communities do not necessarily have to register as money transmitters. In addition, since payments taking place within communities do not involve remote geographic locations, the communities are not likely to be considered IVTS under US law.

In the United States, nonprofits and municipal organizations have safe harbor exceptions under the 1933 Securities Exchange Act. However, there is a body of case law and precedent since then that we will have to pay professional legal researchers to examine. This is one of the line items in the budget that we are raising.

## Tax Laws

The money of people funding projects can be written off as capital losses if the projects fail, which would reduce the taxable income for each individual by a significant amount.

Each community can set up a 501c3 nonprofit to present the currency issuer which, being primarily for the community's benefit, can receive tax-deductible donations. Then, the Basic Income can be offset by tax-deductible donations of community currency to this nonprofit, which reduces each donor's taxable income up to $5,000 a year.

We need to have professional tax researchers in each country figure out the best ways to transition over time from the federal taxpayer-funded welfare state to local Basic Income. This is one of the line items in the budget.

# TECHNOLOGY

## The current landscape

Ever since Satoshi Nakamoto's whitepaper in 2008, there has been an explosion of interest in decentralized crypto-currencies. A lot of innovation has already taken place in the technology space, around smart contracts, which global consensus protocol to use, and so on.

Decentralized crypto-currencies introduce three major features over previous forms of money, which many people find desirable:

- **Security** – no trusted third party can confiscate your coins
- **Freedom** – pay anyone around the world, no one can stop you
- **Intelligence and Flexibility:** New applications can be developed that interact with the currency, including multi-signature transactions, smart contracts, etc.

However, because these currencies are hosted on global networks that require a global consensus, they also have major drawbacks:

- **One size fits all** – the token can only have one inflation rate, one block size, etc.
- **Speed** – global consensus about all transactions is much harder and slower to achieve
- **Local commerce** – no need to sort transactions from different local communities
- **Innovation** – much harder to test out ideas on a local community level
- **Benefit to people** – existence of gold, bitcoin, etc. doesn't help solve poverty

The majority of crypto-currencies today have focused on making a single "decentralized" network, where all payments are done in one currency. However, in practice, these networks have become rather centralized, for a variety of reasons, as explained in the next section.

Ripple is one of the only major crypto-currencies to allow trading various currencies against one another. The XRP currency is used as the bridge currency into which others can trade, much as intercoin is used between community currencies. They have developed the interledger protocol to standardize these exchanges of value between ledgers, so other currencies besides XRP may be used. Their XRP consensus protocol and blockchain implementation is open source and is a good fit for our project.

Our project seems to be the first (or one of the first) to come at this from the other side: building currency-as-a-service "for the rest of us", so that any community can have their own apps and currency as easily as they can install Wordpress. The bridge currency in our ecosystem will be Intercoin, like XRP is in Ripple's ecosystem.

# The underlying technology

## How a global blockchain works:

**all transactions in the world**

## How intercoin works:

**Community blockchain**

cash out

cash in

cash in

cash out

**Community blockchain**
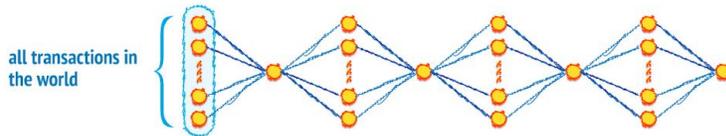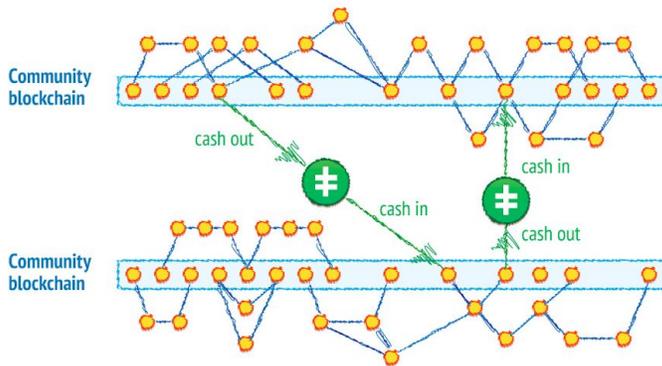
Local community transactions do not need to be included in an ever-growing global ledger.

Local currencies circulate locally.

People cash out to Intercoin to move money between communities.

It should be stressed that there are many good open-source Distributed Ledger Technologies that can be used for both the Intercoin network and the Community Coin network. Our project aims primarily to enable local commerce and fintech innovation. In this context, it can be thought of as "Wordpress for Currencies", while the choice of underlying DLT is like the choice of open-source backend database engine, such as MySQL, Postgres, MongoDB, SQLite, etc.

In other words, our project is like the Mac – which took the new Personal Computer technology and developed a new breed of easy-to-use software that opened up a world of possibilities for regular users: graphical design, fonts, home publishing, and more. We believe there is a great deal of room to innovate by bringing Crypto-Currency technologies to communities.

# Technical Whitepaper

That said, we are developing a **new technology** specifically for communities to operate their own decentralized payment network, that is not based on consensus at all. It is super-fast and works even if ⅓ of the participants are dishonest. When you're building technology for smaller communities to run their own currency, consensus is tricky to achieve without someone being able to dominate it. Proof-of-work blockchains can be dominated by a "51% attack" by anyone with a large enough "hash rate". Proof-of-stake systems lead to more "centralized control" over accepting transactions, undermining the "permissionless" quality that is desired in a crypto-currency. Some community currencies, such as Bristol Pounds, require a central bank.

In the last decade, many different crypto-based protocols were invented to facilitate payments between people. They can be roughly put in two categories: value based currencies and debt-based currencies. A value-based currency (like Bitcoin) needs to solve the double spend problem. This is currently done by recording all transactions in the network on an ever-growing global ledger called a Blockchain, which is shared by all participants in the network. A consensus about who owns what in the entire network needs to be reached before subsequent payments are made. Thus, making Blockchains fast can be a challenge, as well as handling their endless growth while still allowing smaller participants to act as validators.

With most global currencies today, every transaction in the world needs to be validated by a certain group of computers, who run a consensus algorithm to build a blockchain of transactions. Ultimately, these validators control which transactions will get through. Bitcoin's innovation was to use proof-of-work as a way to elect the next "miner", a validator who essentially broadcasts the next "block" of transactions. Over time, though, the proof-of-work arms race has led to centralization of power, just as happens in the real world. Now, only a handful of mining pools control most of the hash power and charge large fees to get transactions placed onto the blockchain. At any rate, it's not necessary to have a global consensus about all transactions, so bitcoin is increasingly used for large, infrequent "global" transactions, while sidechains and Lightning Network are used for off-chain transactions.

**Our technical whitepaper** and **docs** describe novel techniques allowing us to eliminate the double-spending problem entirely without requiring consensus. Consensus comes at a serious cost. First of all, it is slow and requires eventual knowledge of all participants and transactions: any time a group of participants achieves a consensus, it may be overturned when they later learn of a larger group of participants that achieved a conflicting consensus, invalidating previous payments. And secondly, the process can completely break down when more than ⅓ of the participants are "dishonest", allowing them to prevent any further progress in the system indefinitely. The DLT we are building is completely decentralized and can scale to communities of any size that want to run their own payment network.

# Identity across communities



**Login**

public computer? — NO → public computer?

public computer? — YES → **Welcome**

YES → **Auth App**
Receives signed request/challenge. Returns signed userId and data incl. userIds of desired contacts. → **Authenticated!** with data

NO → **Welcome. To begin:**
optional { if app available for platform } enter your mobile # OK

Download Auth App

**Messages** ++
To confirm your # and download AuthApp, tap: https://oursite.com/abc123xya → tap link → Confirms # for user → is app available for platform?

YES redirect to store → **App Store** AuthApp ★★★★

NO → **Website** **Authenticated!** with data

**Welcome**
Scan this QR code with your AuthApp
enter the code

public computer? — YES → **Authenticated!** with data
NO → Enter code e.g. 3 words from Auth App which change every minute → **Authenticated!** (no extra dtata)

Download & launch → **Auth App**
Opens Safari View or Chrome Tabs to authapp.com, gets all auth requests.
Accesses contacts (optional) → **Authenticated!** with data

++ Tells AuthApp.com via iframe post/postMessage that oursite.com has a new auth request.

Our user identity system is decentralized and architected like the internet. Instead of having one identity across a giant, monolithic community, people have a different user id in each community, and it's up to them whether they want to let others know about it. Their private keys never leave their devices.

We implement the **Qbix Auth Protocol** which allows Anonymous Instant Personalization. Your contacts stay private on your phone. From your own devices, you control your identity across various communities, and choose which friends can find you in those communities.

**New York Univercity**
user id: #a12z395
friends ids: #c215123 #23abc52 #23qbcz5

John Smith

Personal Devices

**Columbia Univercity**
user id: #c7931245
friends ids: #ab127937 #532abcd9
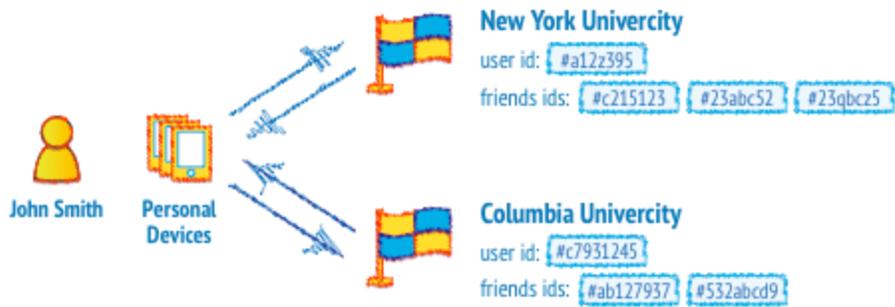
John keeps his contacts & data private. He has a different user id in each community, and only shares his ids and data with Certain chosen people.



Contacts

search contacts

Greg  Mary  Sally  Jane

Bob  John  Kang  Carmen

Lucy  Hanna  Masha  Violet

Friends    NYTimes.com

Jane Goodall

Friends  Family
*manage labels*

About   Communities   Chat

New York Times   33
*how many contacts are members*

YouTube   21

New York Times

The Right Way to Cut Corporate Taxes

*istantly see what your friends are reading / commenting*

Greg  Mary  John   Invite

VOTE  VOTE

How Democrats Can Extend the Winning Streak Into 2018

# Payments across communities

People trade local community currencies to intercoin through an automatic mechanism, and from there, can trade intercoin for whatever else.

By design, the supply of intercoins will finite and fixed (like Bitcoin). But, the communities can run their own fiscal policy. To save money, people will cash out using intercoin. To spend money, people will get the local currency. All of this will happen automatically and seamlessly integrate into any existing apps run by local organizations and businesses. The community payment system will be just as easy to integrate as PayPal or Stripe:
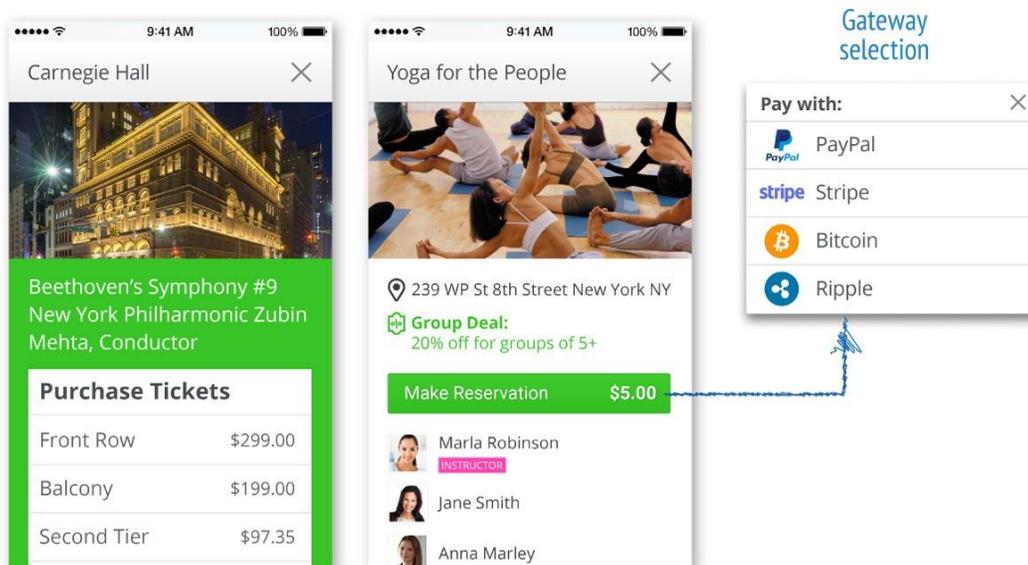


Note that prices are displayed in the user's preferred currency ($).

People make purchases seamlessly in apps for local merchants, venues, instructors and other services.

Everyone is paid out automatically, in the local currency, behind the scenes. Accounting apps and other financial software can easily integrate with each user's financial history.

# ROADMAP

| | |
|---|---|
| **Intercoin Token Offering** | Mar 2020 |
| **Intercoin Private Alpha** | Aug 2020 |
| **Intercoin Public Beta** | Dec 2020 |
| **Community Pilot Projects** | Jan 2021 |
| **Intercoin Worldwide Launch** | Mar 2021 |
| **Launch of Local CPI** | Jun 2021 |
| **Launch of Governance** | Jul 2021 |
| **Launch of Basic Income** | Aug 2021 |
| **Launch of Fundraising** | Sep 2021 |

# TOKEN OFFERING

| | |
|---|---|
| **Total Cap** | 1 billion Intercoin tokens will <u>ever</u> be issued. They are issued by Intercoin Inc. |
| **Market Demand** | Besides speculators and investors looking to buy crypto-currency, demand for Intercoin will ultimately come from communities who issue their own currency (for Micropayments, their own IPO, Donations, Basic Income, or any other applications). Intercoin acts as the reserve currency allowing local vendors to cash out, as well as the bridge currency for cross-community payments. |
| **Public Offering** | Intercoin Inc. is expected to hold a public Coin Offering in the first half of 2020. People around the world will be able to to buy Intercoin legally according to US law. The price in the ICO is expected to be $0.09 USD per token, with discounts for investors who participate earlier.<br><br>At some point in the future, buyers holding ITR tokens will be able to re-sell them over-the-counter to Communities. Various mechanisms are expected to become available for secondary trading of ITR tokens. |
| **Preliminary Offerings** | Intercoin Inc. has been holding a rolling Private Offering before the full Public Offering. It involved executing a token subscription agreement [along these lines](#) which will be later redeemed for the ITR tokens issued during the Public Offering. |
| **Remaining after sales** | 20% of Tokens to Intercoin Inc. 5% of Tokens to charity via communities |

**Charity:** When Intercoin's network launches, 5% of Intercoin tokens will be set aside to be held on reserve by the poorest per-capita communities in the world to issue their own currencies. The primary goal is to improve crime and health outcomes in those areas. If Intercoin appreciates in price, this project may allow those communities to increase their purchasing power over time, and institute basic income, gradually lifting some of the poorest people in the world out of poverty.

# HOW THE MONEY WILL BE USED

**Development**
Intercoin global network
Local community coin blockchains
Native Apps (for iOS and Android, Windows, Mac and Linux)
Reporting (including Local CPI)
Governance (including Provably Random Polling)
Basic Income
User Experience, Visual Design
Payment widgets for apps, like PayPal
Licenses the Qbix Platform for community apps
Third Party Development Platform
Videos and Guides

**Public Relations**
Evangelism to crypto enthusiasts
Events and speakers
Representatives and Partners at the W3C, who sit on boards banking institutions etc.

**Sales**
To townships, universities, cruises and other communities
To various businesses to accept Intercoin
Presentations and materials
CRM system and sales force
Cross-promote with Qbix Platform, to make community website and app in app stores.

**Practical Research**
Legal (money transmitter laws, issuing municipal securities, etc.)
Taxes (how to legally deduct UBI contributions, capital losses, donations, etc.)

**Running the Company**
Office space (food, rent, etc.)
Expenses (flying, hotels, etc.) can be recouped by speaking fees
Executive salaries