

IOUNet Manifesto



The End of Debt

A Different Accounting System for Human Cooperation

Simon Thorpe

Emeritus Research Director, CNRS Toulouse

with Claude (Anthropic)

April 2026

iou-net.org

The World as It Is

Global debt stands at \$348 trillion — \$44,000 for every person on Earth — and is growing by \$29 trillion every year. Governments, businesses, and households pay \$13 trillion annually in interest alone: 13% of world GDP consumed by the cost of having money. The richest 1% own 48% of all global wealth. The bottom 50% own less than 1%. The gap widens every year, driven by compound interest — a structural feature of a monetary system in which every unit of currency is created as interest-bearing debt by a private bank.

The UN estimates \$4.5 trillion per year is needed to reach net zero. Governments say they cannot afford it. But \$13 trillion per year flows to banks in interest without question. Healthcare, education, infrastructure, and social care are chronically underfunded — not because resources don't exist, but because the money to pay for them is created as debt, and the debt has become unserviceable.

Goldman Sachs estimates 300 million jobs will be displaced by AI. In a system where survival depends on paid employment, and employment depends on growth funded by debt, there is no plan for what happens when the jobs disappear. No government, no central bank, no international body has a credible strategy to reduce global debt, fund climate action, reverse wealth concentration, or replace the employment that automation will eliminate.

These are not separate crises. They are symptoms of a single design flaw: money itself. Every dollar, euro, pound, and yen in circulation was created as a loan by a commercial bank — from nothing, at interest. This is not a conspiracy theory; it was confirmed by the Bank of England's own 2014 paper, *Money creation in the modern economy*. The money supply is the outstanding debt. You cannot escape debt by denominating obligations in the currency of debt. The arithmetic forbids it.

***The problem is not that we lack resources, intelligence, or goodwill.
The problem is that we are keeping score with the wrong unit.***

A Different Accounting System

IOUNet is not a cryptocurrency, not a fintech startup, not a reform of banking, and not a revolution. It is a different accounting system — one where human time, not bank-created money, is the unit of exchange.

The principle is ancient and intuitive. When someone does something for you — cooks a meal, fixes a tap, tutors your child, drives you to the airport — you send them an IOU valued in $\odot$ (pronounced "you"), where one $\odot$ equals one minute of human time. The system tracks everyone's net position: total $\odot$ received minus total $\odot$ sent. Most of the activity in any network is circular — Alice helped Bob, Bob helped Carol, Carol helped Alice — and washes out automatically, contributing nothing to anyone's net position. The small residual is settled at the jubilee, where net creditors are matched with net debtors using at most one IOU per person. After the jubilee, every net position is exactly $\odot 0$.

IOUNet is orthogonal to the conventional money-based economy. It does not replace money. It does not convert into money. It reveals how much of human cooperation never needed money in the first place.

The ◎ Unit

One ◎ equals one minute of human labour. Why not dollars? Because dollars are created as debt — the money supply is the outstanding debt, so you cannot escape debt by denominating in dollars. Human time is universally scarce, universally understood, and inflation-resistant. A hospice nurse's minute and a CEO's minute are both one ◎. All IOU values are whole numbers — 1◎, 5◎, 30◎, 120◎. No fractions, no decimals. A child can do the arithmetic.

The ◎ is not money. It has no exchange rate, no market price, and no monetary equivalent. It cannot be bought or sold. It exists solely as a record of human time given and received.

The ◎ scales naturally from a single favour (a few ◎) through community exchange (K◎ — thousands of minutes) to national cooperation (G◎ — billions of minutes) to planetary civilisation (T◎ and beyond). The same unit, the same arithmetic, the same jubilee — at every scale. And with roughly 6 billion adults each awake for 960 minutes per day, humanity produces about 6 T◎ per day — a number that dwarfs conventional GDP because it counts all waking human activity, not just the paid fraction.

The Mathematics

The core mathematical result is simple to state and profound in its implications.

In any IOU network, every user has a net position (total ◎ received minus total ◎ sent). The vast majority of gross IOU activity is circular — it washes out and contributes nothing to anyone's net position. The small residual of net positions can be settled with at most $N-1$ settlement IOUs for N users. This is independent of how many IOUs each person sent or received. Whether a user sent 1 IOU or 1,000, their net position is one number, and settling it requires exactly one settlement IOU.

The complexity is in the gross. The simplicity is in the net. And the net is all that ever mattered.

The leverage ratio — gross activity divided by net residual — grows with network density. At 50 IOUs per user, over 98% of all gross activity is circular. At planetary scale, virtually all activity washes out. The settlement algorithm is $O(N \log N)$, dominated by one sort of N net positions. The Planetary Engine settles 10 billion users in under a minute.

This result does not depend on the total value of debt. Whether each person has ◎10 of net debt or ◎10 million, the algorithm takes the same number of steps. A network carrying quadrillions of ◎ settles in the same time as one carrying thousands.

The Discovery

The principle was discovered through a wrong turn that lasted twelve years — followed by a single day of revelation.

From 2014 onwards, IOUNet was built around cycle detection: finding loops in the graph of obligations and cancelling them. For a network of millions of users, this is a hard computational problem. From late 2025 into early 2026, months were spent building and optimising parallel cycle-detection algorithms in Swift, running 24 processor cores through networks of millions of users, finding billions of cycles.

Then, on 5 March 2026, the realisation came. All that cycle searching was mathematically unnecessary. The net position of every user is invariant under cycle cancellation. It does not matter which cycles you find or in what order you cancel them: the net positions are the same before and after. You can skip the cycle detection entirely and go straight to net position settlement. One linear pass. One sort. One matching loop. Done.

Months of parallel graph algorithms, replaced by arithmetic that runs on a pocket calculator. Everything on iou-net.org — the JavaScript simulations, the Swift engine settling 10 billion users, the planetary dashboard, the jubilee system — was written in the two weeks that followed. One human and one AI, working together. Neither could have done it alone.

The Jubilee

The jubilee is the oldest economic institution in civilisation. The Hebrew sh'mittah required debts to be cancelled every seven years. The yovel (jubilee) every fifty. The practice was not a minor footnote — it was central to Mosaic law, repeated by the prophets, and enforced for centuries in the ancient Near East.

IOUNet is the mathematical implementation of the same principle — but bottom-up, continuous, and automatic. The jubilee algorithm matches the largest net creditor with the largest net debtor, settling for the smaller of their two balances. This drives exactly one of them to zero. Repeat until everyone is settled. At most $N-1$ settlement IOUs for N users. After the jubilee, every net position is exactly $\odot 0$.

How Often?

As often as the community agrees. Once or twice a year is a natural starting point — the spring equinox and autumn equinox have an appealing symmetry, the moment when day equals night, when the balance of light tips. A more ambitious rhythm: every full moon, roughly every 29.5 days. The full moon is universally visible. It requires no calendar, no app, no internet. The Amazonian tribe and the Tokyo salaryman see the same full moon on the same night. A lunar jubilee is the only global synchronisation event that works without any technology at all.

The Jubilee Is Fractal

Jubilees do not have to be global. They work at every scale. A household settles domestic IOUs every full moon. A school classroom runs a jubilee on the last day of term. A village settles quarterly. A nation settles at the equinox. A planetary jubilee runs once a year. Each layer settles what it can, and remaining cross-boundary balances propagate upward to the next level. The algorithm is the same. Only the scope changes.

The jubilee is not a dream. It is a solved engineering problem.

Privacy as Mathematics

Privacy in IOUNet is a structural feature, not a policy promise.

Every time a user's net position crosses zero, all prior IOU records involving them — who sent what to whom, with what description — no longer need to exist. They can be permanently deleted. A user who returns to zero leaves no trace. This creates a direct incentive: the more actively you engage and reciprocate, the less record exists of you having done so.

The individual identity vanishes, but the aggregate statistics survive permanently. The system can record, for each settlement: the category of activity (babysitting, gardening, teaching, cooking, care work), the value in $\odot$, and the timestamp. No names. No relationships. Just what kinds of human activity are being exchanged, and at what scale. A community where 40% of IOUs are for care work and 20% for teaching is telling you something about its values that no monetary statistic can capture.

There is a tension to acknowledge. The social vision of IOUNet relies on visible profiles and community recognition, which sits uneasily with a promise of privacy. In practice, the resolution is consent: users choose what to make visible on their profile, while the underlying transaction history is deleted when positions cross zero. The profile is a public face; the ledger is private. But in small communities, graph structure and aggregate statistics can sometimes reveal identities even without names. Privacy here is a strong design principle with real mathematical backing, not an absolute guarantee. Where auditability is needed — for fraud, coercion, or child safeguarding — communities will need governance mechanisms that balance transparency with protection.

Privacy is the reward for cooperation. The more you give, the less trace remains.

One Mechanism, Four Contexts

The accounting rule of IOUNet is simple and universal: every $\odot$ has a sender and a receiver. Every IOU updates two net positions — one up, one down. There are no exceptions.

What varies is the context in which IOUs flow. Human cooperation takes many forms, and $\odot$ captures all of them through the same bilateral mechanism.

Context 1: Bilateral Exchange

Alice cooks dinner for Bob. Bob sends Alice $30\odot$. This is the foundational context — the IOU as a record of one person's time given to another. It captures most informal economic activity: favours, services, care, trade. Each IOU has a sender and a receiver, and it updates both their net positions.

Context 2: One-to-Many

A journalist publishes an article. Two thousand people read it, each spending 15 minutes. The journalist receives $30,000\odot$ — not from a single patron, but from the aggregate attention of an audience. A musician releases a track; every listener sends $\odot$ for the minutes they spent listening. The creator's compensation scales with the actual human attention their work attracts. No intermediary decides the rate. The arithmetic is transparent. Each listener-to-creator IOU is a standard bilateral transfer; only the pattern is one-to-many.

Context 3: Collective Activity

A choir of 25 people rehearses for two hours on a Tuesday evening. Nobody is serving anyone else. Nobody is the provider and nobody is the consumer. Twenty-five people are doing something together that enriches all of them simultaneously. In the conventional economy, this activity is invisible — it generates no GDP, no tax revenue, no transaction.

In IOUNet, the choir exists as a named group entity with its own $\odot$ account. After the rehearsal, the choir sends each of its 25 members $120\odot$ for the two hours they participated. The choir's net position goes negative by $3,000\odot$. The members' positions go positive. The accounting is clean: every $\odot$ has a sender (the choir) and a receiver (each member).

The choir members, in turn, may choose to send IOUs back to the choir — acknowledging the value of the organisation itself, contributing to the cost of the rehearsal space, recognising the conductor's preparation time. The conductor might receive additional IOUs directly from individual singers. Over time, the choir's net position reflects how much value its members and the wider community place on its existence. At jubilee, the residual — like all residuals — resets to zero.

The same principle applies to every form of collective human activity. A football team training together. A hiking group walking in the mountains. A reading circle discussing a novel. A village clean-up crew spending a Saturday morning picking litter from the riverbank. A group of parents running a playgroup. A band of volunteers sandbagging a flooded neighbourhood. Each group is an entity; it sends IOUs to its participants; the community sends IOUs to the group. One mechanism. Clean accounting.

Context 4: Caring for the Living World

The first three contexts all involve other people — as recipients, as audiences, or as fellow participants. Context 4 recognises that the living world has value, and that time spent caring for it is a genuine contribution — even when no other person is the direct beneficiary.

A retired teacher who spends two hours every morning maintaining a stretch of woodland — clearing invasive species, coppicing hazel, monitoring bird nests, maintaining footpaths — is doing something of profound and lasting value. In the conventional economy, this work is invisible unless someone pays for it. In IOUNet, a recognised environmental organisation sends the IOU.

The validation ecosystem works as follows. Any organisation — a commune, a regional nature park, an NGO like Friends of the Earth, a neighbourhood conservation association — can choose to validate ecological work and send IOUs to those who do it. The worker submits evidence: a pair of GPS-stamped, dated before-and-after photographs of the site. The organisation reviews the evidence, and if satisfied, sends an IOU for the time spent.

No single authority has a monopoly on ecological validation. Multiple organisations may offer to validate the same kind of work, and the worker can choose which to approach. Organisations that are rigorous build trust; those that rubber-stamp claims lose credibility. The community, in turn, can send IOUs to the validating organisations themselves — "we value the work you do keeping our environment monitored." An organisation that receives many such IOUs from the community is doing its job well. One that receives none is sending a signal.

This creates a self-correcting ecosystem: workers care for the land, validators verify the work, and communities validate the validators. Every $\odot$ has a sender and a receiver. The validating organisation's net position goes negative as it issues IOUs to ecological workers, but rises as the community recognises its contribution. At jubilee, the residual resets. The living world was cared for, and the care was recorded.

This is not a claim that volunteer time alone can solve the climate crisis. The transition to net zero requires steel, copper, semiconductors, grid infrastructure, and massive capital investment that $\odot$ cannot provide. But a vast amount of ecological work — habitat restoration, biodiversity monitoring, community land management, river clean-ups, hedgerow planting — depends on human time willingly given. IOUNet makes that time visible and ensures that it counts.

Animals

A dog cannot send an IOU. But a partner who walks the dog can receive one. If your partner walks the dog for 20 minutes, you can send them $20\odot$ — acknowledging the time they spent on a shared domestic responsibility. This is ordinary bilateral exchange: one person did the work, another recognises it.

The deeper point is that $\odot$ naturally measures the care invested in animals. A factory farmer with 10,000 chickens who spends 2 minutes per day on the entire flock registers 0.0002 $\odot$ per chicken per day. A smallholder with 20 free-range hens who spends an hour each morning feeding and caring for them registers 3 $\odot$ per chicken per day — 15,000 times more care per animal. For the first time, the difference between industrial exploitation and genuine animal husbandry is not a matter of opinion or regulation. It is arithmetic.

The $\odot$ economy does not just measure human cooperation. It measures human compassion — and makes it visible for the first time.

The Profile

Every IOUNet user has a profile with four sections. The first lists the **services they can offer** — plumbing, tutoring, translation, childcare, web design, bread-baking, whatever they are willing to do for others. The second lists **what they are looking for** — someone to fix a leaking tap, a French teacher, a lift to the airport. These two lists create a marketplace of bilateral exchange: offers matched with needs, IOUs flowing in return.

The third section lists the **collective activities** the user participates in — singing in a choir, playing in a football league, being a member of a hiking group, volunteering at a food bank, attending a knitting circle. These are shared commitments. Every time the group meets, the group entity sends IOUs to its participants for the time they spent.

The fourth section lists **ecological commitments** — activities that benefit the living world. Maintaining woodland. Monitoring wildlife. Restoring a riverbank. Tending a community orchard. These generate $\odot$ through the validation ecosystem: recognised organisations send IOUs in return for verified evidence of ecological work.

This fourfold structure — what I offer, what I need, what I do with others, and what I do for the living world — is a complete portrait of a person's life in the $\odot$ economy. It is also, incidentally, a far richer description of a human being than any CV, credit score, or social media profile has ever provided.

The Measure of a Life

Every person is awake for roughly 960 minutes per day. In the conventional economy, only the paid fraction of that time — typically 480 minutes, five days a week — counts as "productive." The rest is invisible. Cooking breakfast for your family: invisible. Walking your children to school: invisible. Comforting a grieving friend: invisible. Singing in a choir: invisible. Playing football with your neighbours: invisible. GDP sees none of it.

In the $\odot$ economy, all of it counts. Every minute spent helping another person (Context 1), creating something an audience values (Context 2), participating in a collective

activity (Context 3), or caring for the living world (Context 4) generates $\ominus$. The question is no longer "how much money did you earn?" but "how much of your waking time had a positive impact?"

A successful society is one where most people spend most of their time doing things that have a positive impact. Not a society with the highest GDP, the tallest skyscrapers, or the largest military budget — but one where the choir rehearses on Tuesday, the football team trains on Wednesday, the reading circle meets on Thursday, the market opens on Saturday, and the jubilee celebrates it all at the equinox.

GDP counts weapons production and financial speculation. The $\ominus$ economy counts cooking, teaching, healing, building, caring, singing, playing, and restoring the living world. A society's true output — measured in minutes of human attention given to others and to the planet.

What $\ominus$ Does Not Count

There is a fear — widely expressed — that when AI and robots have taken most of the paid work, people will spend their days playing video games and watching Netflix. IOUNet does not ban this. Nobody is punished for spending a Tuesday afternoon on a sofa. But the arithmetic is quietly honest. An hour spent gaming alone is an hour that generated $0\ominus$. It helped no one, created nothing for an audience, contributed to no collective endeavour, and did nothing for the living world.

This is not a moral judgement. It is a measurement — and like any measurement, it has limits. Rest, solitude, contemplation, reading for pleasure, recovering from illness, grieving, daydreaming — these are not failures. They are essential parts of a human life. A person with chronic illness, depression, or heavy caring responsibilities may have low $\ominus$ -productivity for reasons entirely beyond their control, and the system must not become a tool for shaming them. The $\ominus$ measures contribution, not worth. A person's value is not their $\ominus$ -productivity, just as it was never their salary.

With that caveat, the measurement creates a gentle incentive. A person who notices that much of their time generates $0\ominus$ can ask themselves — not under compulsion, but out of curiosity — whether this is how they want to spend their days. The conventional economy cannot ask this question, because it counts only paid work. A banker working 80-hour weeks on leveraged buyouts has a high "productivity" by GDP standards and may have a negligible $\ominus$ -productivity. A grandmother who cooks for her grandchildren, sings in a choir on Tuesdays, maintains the village pond on Wednesdays, and reads to children at the school on Thursdays has zero GDP productivity and an extraordinary $\ominus$ -productivity. The $\ominus$ economy knows which of these two people the community actually depends on.

IOUNet at Every Scale

The Household

Two partners sharing a household send each other IOUs to balance the daily work of domestic life: shopping, cooking, cleaning, childcare, dog-walking, repairs. Each task earns $\ominus$ for the time spent. Over a week or a month, imbalances become visible. One partner has been doing more than their share. The other is in the red. This is not an accusation; it is arithmetic. And it opens a conversation that most couples find very difficult to have honestly.

At jubilee time — perhaps every full moon — the partner who owes makes up the difference. An extra evening of cooking. A weekend of childcare. The ledger returns to zero. Both start fresh. The $\ominus$ makes the invisible visible.

The Classroom

A teacher sets up IOUNet accounts for the children in a class. No phones needed. Owen helped Louisa solve a maths problem — $10\ominus$. Louisa comforted Owen when he fell over — $10\ominus$. Emily helped tidy up the paints — $15\ominus$. Every act of kindness and cooperation becomes visible. At the end of term, the children who have been the most helpful receive recognition — not for being the cleverest, but for being the most useful to others.

On the last day of term, the teacher runs the jubilee. The children see the circular activity wash out, the network balance, cooperation making everyone better off. They learn, at age seven, what most adults have never been taught: that an economy based on mutual obligation can work without money, without interest, and without anyone being left in debt.

The Community

The Saturday market. The village hall. The neighbourhood WhatsApp group. IOUNet operates wherever trust already exists. The baker accepts IOUs alongside cash, saving 3% on every transaction that clears through the network. The retired teacher tutors maths and earns $\ominus$. The handyman fixes fences and earns $\ominus$. At the quarterly jubilee, the circular obligations cancel and the community starts fresh. The proportion who participated becomes a measure of communal health — not through surveillance, but through the geometry of the network.

Death

When someone dies, their IOUNet account is settled — to zero. Positive or negative, the balance is cancelled. No $\ominus$ is inherited, bequeathed, or fought over. Death in IOUNet is symmetric and clean.

The arithmetic handles itself. Roughly 170,000 people die every day. Their net positions — some positive, some negative — are pooled and matched against each other in a continuous mini-jubilee among the departed. Any residual imbalance is absorbed into

the next regular jubilee for the living. Since the sum of all net positions in the system is always zero, the accounting balances automatically.

In IOUNet, nothing survives death except the good you did. Your $\ominus$ cannot be hoarded, bequeathed, or fought over. The jubilee settles your account as it settles everyone's — to zero.

This is a fundamental design principle. In conventional finance, debt can be inherited. Families are burdened with mortgages, loans, and credit card balances. Creditors pursue grieving spouses and children. In IOUNet, death is economically clean. One bit flip, one settlement, and the jubilee handles the rest. No lawyers. No estate disputes. No creditors chasing grieving families.

Because $\ominus$ cannot be accumulated across generations, there is no incentive to hoard. You cannot build a dynasty in $\ominus$. You cannot leave your children a fortune in minutes. The only inheritance is the example you set — a life measured not by what you kept, but by what you gave.

In IOUNet, you can inherit love. You cannot inherit $\ominus$. The jubilee makes sure of that.

What IOUNet Is Not

It Is Not a Replacement for Money

IOUNet supplements rather than replaces the conventional economy. Cash still works. Cards still work. IOUNet adds a third option: free, instant, private by default, and mathematically guaranteed to settle. The Saturday market trader who accepts IOUs alongside cash saves on every transaction that clears through the network. The neighbour who exchanges childcare informally is doing what humanity did for millennia before banks existed — now with a mathematical guarantee that obligations balance over time.

It Is Not a Currency

$\ominus$ has no exchange rate. It cannot be converted into euros, dollars, or any other currency. It cannot be bought, sold, traded, or speculated on. This is a deliberate design choice, not an oversight. The moment $\ominus$ acquires a monetary price, it becomes subject to the same dynamics of accumulation, speculation, and inequality that characterise existing money. By remaining incommensurable with money, $\ominus$ preserves its function as a pure measure of human time given and received.

It Is Not a Cryptocurrency

There is no blockchain, no mining, no token, no speculative asset. $\ominus$ is not "created" by anyone. It is a unit of time, and time is something every human being already possesses. An IOU is a promise between two people, not a withdrawal from a central reserve. The supply of IOU credit is bounded only by trust — and unlike money, trust can be actively cultivated.

It Is Not a Reform of Banking

The Chicago Plan would require banks to hold 100% reserves, ending private money creation. That is a reform of who creates money. IOUNet asks why we need created money in the first place. The Baker, the Carpenter, and the Nurse — three people who could freely exchange services using IOUs — would still need a bank under the Chicago Plan. In IOUNet, they need only each other. The two are not incompatible, but if you had to choose one reform, ask: which is more likely — persuading every government on Earth to restructure their banking system, or giving 10 billion people a free app?

It Is Not Universal Basic Income

UBI accepts the premise that people need money to survive, and proposes to redistribute it. But redistribution requires taxation, taxation requires a functioning economy generating taxable revenue, and that economy is precisely what AI and automation are disrupting. UBI treats citizens as passive recipients of state-issued income. It replaces the dignity of "I contributed something" with "I received something."

IOUNet offers something fundamentally different. When machines handle production, the human who teaches your child, walks your elderly neighbour to the shops, coaches the local football team, tends the community garden, or plays music at the village fête — all of that is real, valuable, $\odot$ -denominated work. The more that material production is automated, the more human time is freed for exactly the activities that IOUNet values most.

UBI asks: "How do we give people money when there are no jobs?"
IOUNet asks: "Why do people need money when they have each other?"

The Moral Case

Every major religious tradition is unanimous: charging interest on loans is forbidden. The Hebrew word *neshek* means "a serpent's bite." Islam ranks *riba* among the gravest sins, alongside murder. Dante places usurers in the seventh circle of Hell. The prohibition was central to Mosaic law, repeated by every prophet, affirmed by Jesus, and enforced by the Catholic Church until the 16th century.

The current system — where \$348 trillion of debt generates trillions annually in interest paid to the wealthiest institutions on Earth — is, by every religious standard that has ever existed, a transgression of the first order. IOUNet does not require anyone to accept this argument on faith. But it is worth noting that the moral intuition embedded in four thousand years of religious teaching and the mathematical result discovered in March 2026 point in exactly the same direction: debt should be periodically cancelled, interest should not exist, and the measure of a person's worth should be what they give, not what they accumulate.

The Planetary Engine

The Planetary Engine simulates 10 billion entities — every person, business, charity, and government on Earth — generating 50–60 million IOUs per second across 24 processor cores. A bell curve of net positions builds as IOUs flow. Every two hours, on the hour, the jubilee triggers. All 24 cores switch to optimal settlement: sorting users by net position and matching the extremes inward. The histogram collapses from the tails toward zero. Within a couple of minutes, all 10 billion net positions have been reset to 0. The ghost outline of the pre-jubilee bell curve remains as a grey shadow, showing the total mass of debt eliminated.

But here is the crucial point: resetting net positions to zero does not erase the positive impact of all the cooperation that occurred in the meantime. The meals were cooked. The children were taught. The woodland was tended. The choir rehearsed. The articles were written and read. All of that activity — every minute of human time given to others and to the living world — happened, and its effects persist. The productivity of every participant was recorded. The anonymous aggregate statistics survive. The jubilee does not undo the work. It simply clears the ledger so that the next cycle of cooperation can begin fresh, unburdened by accumulated obligation.

10 billion USERS SETTLED	every 2 hrs JUBILEE CYCLE
~2 min TO RESET 10 BILLION	225 KB COMPILED ENGINE
1 machine MAC STUDIO, TOULOUSE	

The compiled engine is 225 kilobytes. The Visa app is 750 times larger. Visa, Mastercard, and the major card networks extract roughly \$650 billion per year in processing fees — about \$1,200 per American household — for the privilege of moving numbers between accounts. IOUNet replaces this with free, instant, private settlement. The toll booth is gone.

The marginal cost of one additional IOU is a few microseconds of arithmetic. The marginal cost of one additional settlement is zero. The entire planet's debt can be settled on a desktop computer. The software was written by an AI at 0. There is nothing left to charge for.

Taxation

Tax authorities in the US, the EU, and most OECD countries treat barter exchanges as taxable events — the IRS requires reporting of fair market value received, and EU VAT Directive 2006/112/EC treats barter as a taxable supply. But these rules were designed for commercial barter networks where businesses trade services worth thousands of dollars off the books. IOUNet is not that. The ☺ has no monetary equivalent — no exchange rate, no market price, no conversion — so there is no fair market value for a tax authority to assess. EU VAT applies to "taxable persons" carrying out "economic activities," which does not describe neighbours exchanging favours or an open-source algorithm running on a desktop computer. Humanity has exchanged favours for two hundred thousand years without tax authorities intervening. IOUNet merely records the arithmetic.

The deeper question is whether sales taxes make sense at all. They actively discourage exchange, they are regressive, and they are hard to enforce. According to the UBS Global Wealth Report, individual net wealth worldwide stood at approximately \$492 trillion in 2024. A 1% annual tax on global net wealth would raise roughly \$4.9 trillion per year — equivalent to the entire US federal budget — leaving all other taxes at zero. IOUNet and a wealth tax are natural companions: IOUNet handles the informal economy of mutual exchange, while a wealth tax funds public goods from the accumulated surpluses of the formal economy. Together they make sales taxes and income taxes largely unnecessary.

Could It Be Stopped?

The \$650 billion extracted annually in card processing fees alone, plus the trillions in interest, represent the most powerful vested interest in human history. Banks and governments could try to suppress IOUNet. But the system has a structural advantage: it is mathematically simple, requires no central infrastructure, and can run on a phone. The underlying algorithm — compute net positions, match creditors with debtors — is so simple that suppressing it would require suppressing basic arithmetic.

The internet survived because it routed around censorship. IOUNet is designed with the same principle: decentralised, open, and too simple to kill. The code will be open source. The settlement algorithm is public. Anyone can run it. And critically, IOUNet has no effect whatsoever on conventional wealth. Billionaires keep their billions. Companies keep their assets. Pension funds keep their bonds. IOUNet operates in a completely separate domain — the domain of mutual obligation and social trust. There is nothing to confiscate because there is nothing of monetary value to take.

Governance and Abuse

No system designed for human use is immune to misuse, and IOUNet is no exception. The manifesto would be dishonest if it did not acknowledge the risks.

Fraud and fake logging. A user could claim ecological work they did not do, or inflate the time spent on a favour. The validation ecosystem for ecological work (GPS-stamped evidence, multiple competing validators) mitigates this for Context 4. For bilateral exchanges, the defence is the same as it has always been: the other party decides whether to send the IOU, and how much it is worth. Persistent fraud erodes trust, and trust is the only currency in the system.

Coercion and exploitation. An employer, a dominant partner, or an abusive family member could pressure someone to send IOUs they do not owe. This is a real risk, and it mirrors existing forms of economic abuse. IOUNet cannot prevent coercion any more than cash can, but the existence of a record — prior to deletion at zero-crossing — provides evidence that cash transactions do not. Communities will need governance mechanisms to identify and address patterns of exploitation.

Disability, illness, and vulnerability. A person with chronic illness, severe disability, or overwhelming caring responsibilities may have very low $\ominus$ -productivity. The system must not penalise this. $\ominus$ -productivity is a descriptive measure, not a qualification for participation. Everyone begins at $\ominus 0$ and everyone is welcome to participate at whatever level they can. Communities that use $\ominus$ -productivity as a basis for social judgement are misusing the tool, just as employers who judge people solely by salary are misusing money.

Child safeguarding. Children participating in classroom IOUNet must be protected from any pressure to perform or to accumulate $\ominus$. The classroom use case is educational — teaching cooperation, not creating a performance metric.

These are governance problems, not mathematical ones. IOUNet provides the accounting layer. The rules, norms, and protections that sit above it are for communities to decide.

An Invitation

IOUNet does not ask you to abandon the world you live in. It asks you to try a parallel one — starting with the people you already trust.

A household that tracks domestic work in $\ominus$ and settles every full moon. A school classroom where children earn recognition for helping others. A village market where the baker accepts IOUs alongside cash. A community that celebrates the jubilee as a collective act of mutual service. These are not fantasies. They are things that can begin tomorrow, with a phone number and a willingness to keep score differently.

The mathematics is solved. The Planetary Engine settles 10 billion users on a desktop computer. The software costs $0\ominus$ to build and $0\ominus$ to run. What remains is the oldest and most powerful technology in human civilisation: one person choosing to help another, and trusting that the favour will be returned.

Four thousand years ago, the jubilee was a decree handed down by a king. Today, it is a compiled binary — 225 kilobytes — running on a desktop in Toulouse. The principle is the same. The arithmetic is the same. The promise is the same: that debt is not destiny,

that obligation can be mutual, and that every ledger, no matter how vast, can be brought to zero.

Everyone begins at 0. What you do next is up to you.

IOUNet — iou-net.org

Research by Simon Thorpe, CNRS Toulouse · Built with Claude (Anthropic)

The IOUNet Principle was discovered February–March 2026.

iou-net.org