

WHAT COUNTS?

Signaling our values
through creative currencies



A project of
Collaborative Design MFA / Design Systems MA
Pacific Northwest College of Art

2020

The confluence of crises in 2020 has laid bare deep societal fissures and flaws. We are questioning what we truly care about and why.

The PNCA Strategy + Foresight class has been exploring the what, how, and why of personal and societal values. In particular, what symbolic systems do we use for signaling and promoting our values, and how might we design better ones? We've learned to call these value-signaling systems: **currencies**.

In this publication, we speculate on creative currency futures, and we invite you to play along.

WHAT IS CURRENCY?

cur·ren·cy *noun* / 'kər-ən(t)-sē

Condition of flowing.

—Online Etymology Dictionary

**Anything that incentivizes
(encourages or hinders) a flow.**

—Jean Russell

**Formal symbol systems which shape,
enable and measure currents.**

—Arthur Brock

When you hear the word “currency,” you probably picture state-sponsored money, like the US dollar. We use a broader definition, in which money is but one type of currency. Students earn grades, politicians seek votes, social-media users trade “likes.” These are also currencies. We use grades, votes, and likes to signal approval, and these signals have a coordinating effect.

Today, some of our biggest problems are driven by faulty signals. The relationship between money and value is particularly tenuous. Critics of money-as-usual contend that today’s monetary system itself drives some of humanity’s biggest disruptions: a growth imperative that forces ecological collapse and a success-to-the-successful dynamic that amplifies inequalities and scarcities.

Too often, we take our signaling systems as given, as if they were untouched by human hands. On the contrary, these systems are designed. And if they are malfunctioning, then they need to be redesigned.

Today, spaces for currency design and redesign are opening, and we want to help open them wider. We have developed this publication as an introduction to what currencies are, an exploration of how they might be reimagined, and an invitation to reconsider how one’s own values are communicated. A list of experts we spoke with and sources we drew from are detailed at the end of this publication.

CURRENCIES

MONIES

TOKENS

TALLIES

BADGES

RATINGS

QUOTAS

STAMPS

COUPONS

REVIEWS

CITATIONS

GRADES

CREDENTIALS

EVALUATIONS

ACCREDITATIONS

INDICATORS

VOTES

ON COUNTING

There are some things that can be counted and some things that cannot. And this is something that we have not worked out yet.

—Nora Bateson

Debt is neo-colonialism.

—Thomas Sankara

You come home and your partner or housemate has cooked a lovely dinner. Do you pay them? Sounds absurd and even insulting, right? What we love most is perhaps best left unquantified. This might be called the dilemma of counting.

Currencies can distort. The signal can draw attention away from the values to which it points. When we fixate on counting, what is counted shapes our perceptions of what counts. We mistake clockworks for time, monies for wealth, and indicators that are used to account for well-being, like Gross Domestic Product (GDP), for well-being itself.

To be fascinated by clockworks, monies, and indicators is to find our lives colonized by signals rather than substance. We wake up to find that much of the world's "wealth" belongs to a handful of people, and that much essential work is the least remunerated.

In ancient times, new rulers would declare a Jubilee: an erasure of personal debts. Perhaps we need an even more radical reworking that wipes our slates clean, not just of debt but of the monetary systems that created it. By reconsidering our tallies from the ground up, we can design new models of counting that might help us reconceive wealth.

Ask yourself: how might we decide what to count? Can we count well-being or ecological health? How might different types of currencies serve differing functions and reflect differing types of values?

What counts?

MISSING FROM GDP

QUALITY OF LIFE

RESILIENT ECOSYSTEMS

MATERNITY

CHILD CARE

HOME COOKING

HOUSEHOLD UPKEEP

FREE TIME

HAPPINESS

PRESERVATION OF TRADITION

PHOTOSYNTHESIS

DISTORTING GDP

ARMAMENTS / WARS

RESOURCE EXTRACTION

POLLUTION

PRISONS

MONEY IN HISTORY

Money can be designed in different ways, and those different ways matter. They create different kinds of markets.

—Christine Desan

Local currencies are a key tool in building local monetary resilience.

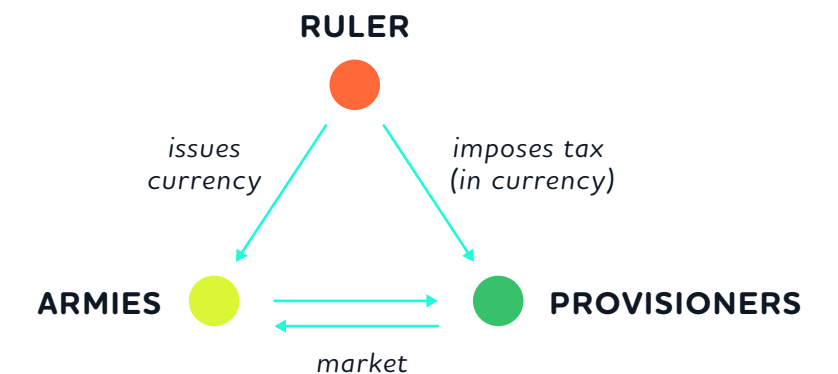
—Rohan Grey

Futurists advise looking back twice as far as one seeks to look forward. To imagine currency futures, it's worth looking way back to the origins of that most emblematic of currencies: money.

In the ancient Mediterranean, rulers developed coinage systems for provisioning armies by imposing taxes on those who might provision them. Diagrammatically, this system can be represented as a simple triangle. Issue coins in one direction and impose taxes in the other, so that a market emerges in between. David Graeber called this regime the “military-coinage-slavery complex.”

A distinction between markets and the later development of capitalism can be drawn as follows. **In markets, goods and services are exchanged through the medium of money;** and **in capitalism, goods and services are the medium through which money is used to get more money.**

At times throughout history, currencies with differing designs have been used to complement each other, creating a currency polyculture. The scarcities of the 1930s, for example, led to numerous complementary currencies. Two notable ones were the “perishable” currency used from 1932 to 1933 in Wörgl, Austria, and the business-to-business mutual exchange system that developed into the WIR Bank in Switzerland. Both these designs have inspired contemporary adaptations. In 2020, the town of Tenino, Washington began issuing a pandemic currency, printed on the same press it used in the 1930s.



WHY NOW?

Assessing trends and patterns, three key influences stand out as driving the momentum behind the emergence of currency alternatives.

REASSESSING VALUES

In 2020, conversations about values are happening among world leaders and around kitchen tables. Currency design is about values, and currency designers are motivated by—and seek to encode currencies with—a wide range of values.

VALUES VARIOUSLY ATTRIBUTED TO CURRENCY DESIGN

- Stability
- Security
- Liquidity
- Privacy
- Ease of payment
- Localization
- Participation
- Insight
- Consensus
- Credibility
- Mutuality
- Sovereignty
- Agent-centricity
- Sustainability
- Well-being
- Resilience
- Thrivability

RETHINKING MONEY-AS-USUAL

With crisis-after-crisis pressures from the 2008 financial meltdown to the 2020 pandemic, the monetary status quo is being challenged from all sides.

CONTRIBUTING TRENDS

- Questioning monetary assumptions, from austerity politics to “the deficit myth”
- With cryptocurrencies, rising awareness of monetary alternatives
- Growing attention to historical interrelationships between monetary systems and colonialism/slavery
- Mounting distrust of global finance

EMERGING TECHNOLOGIES

Tools for currency development are accessible and evolving, leading to a growing variety of innovations.

CONTRIBUTING TRENDS

- Advancing the development of technological applications
- Enabling currency simulation and testing with online tools
- Experimenting with technologically aided forms of exchange
- Learning about the ways that currency innovations and technologies translate across cultures

THE ECOSYSTEM OF CURRENCY INNOVATION

We live in capitalism, its power seems inescapable—but then, so did the divine right of kings.

—Ursula Le Guin

In order to speculate on creative currencies, we first examined today's ecosystem of currency innovations.

We analyzed drivers of change, scanned for leading innovations, drew and redrew ecosystem boundaries, spoke with experts, and considered examples of how others had bounded, surveyed, and clustered the ecosystem.

Several such surveys already exist. They are variously organized around currency models or technological applications (the **what**), types of accounting (the **how**), and the goals or worldviews of currency practitioners (the **who**).

We tried another approach. For each currency design that we examined, we asked: What is the function of this currency? **Why** count in this way?

Based on these questions, we organized the ecosystem into four areas. We considered currencies designed to: **stimulate** activity, facilitate **care**, **coordinate** learning or doing, and **regulate** activity. First, we diagrammed a few currency designs, in order to better understand how they function. Then, we developed scenario vignettes about life a few years from now in each of these four areas. We invite you to rate each vignette based on desirability and plausibility. Finally, we imagined what advertisements for future currencies might look like.

WHAT

Institute for the Future

CRYPTOCURRENCIES

CRYPTOGRAPHY

DATA FINGERPRINTS

LEDGERS

OPEN PROTOCOLS

P2P NETWORKS

SIGNATURES

SMART CONTRACTS

HOW

Michel Bauwens

CONTRIBUTIVE ACCOUNTING

FLOW ACCOUNTING

THERMODYNAMIC ACCOUNTING

WHO

Brett Scott

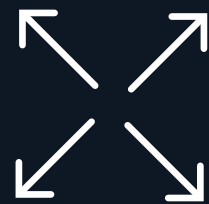
GOVERNMENT MONEY WARRIORS

BANK MONEY REFORMERS

CRYPTOCURRENCY CRUSADERS

THE LOCALISTS

THE CRYPTO-CREDIT ALLIANCE



STIMULATE

INCENTIVIZE AND ENCOURAGE
GROWTH IN TARGETED WAYS



CARE

FACILITATE AND FOSTER MUTUAL
SUPPORT, COMMITMENT, AND OBLIGATION

FLOWS AND FUTURES

A CREATIVE CURRENCY
ECOSYSTEM



REGULATE

PROVIDE AND INCORPORATE SOCIAL AND
ECONOMIC SIGNALS OF ECOLOGICAL HEALTH

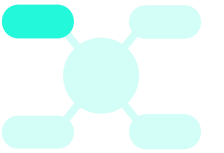


COORDINATE

ENABLE DECENTRALIZED AND
DISTRIBUTED LEARNING AND DOING



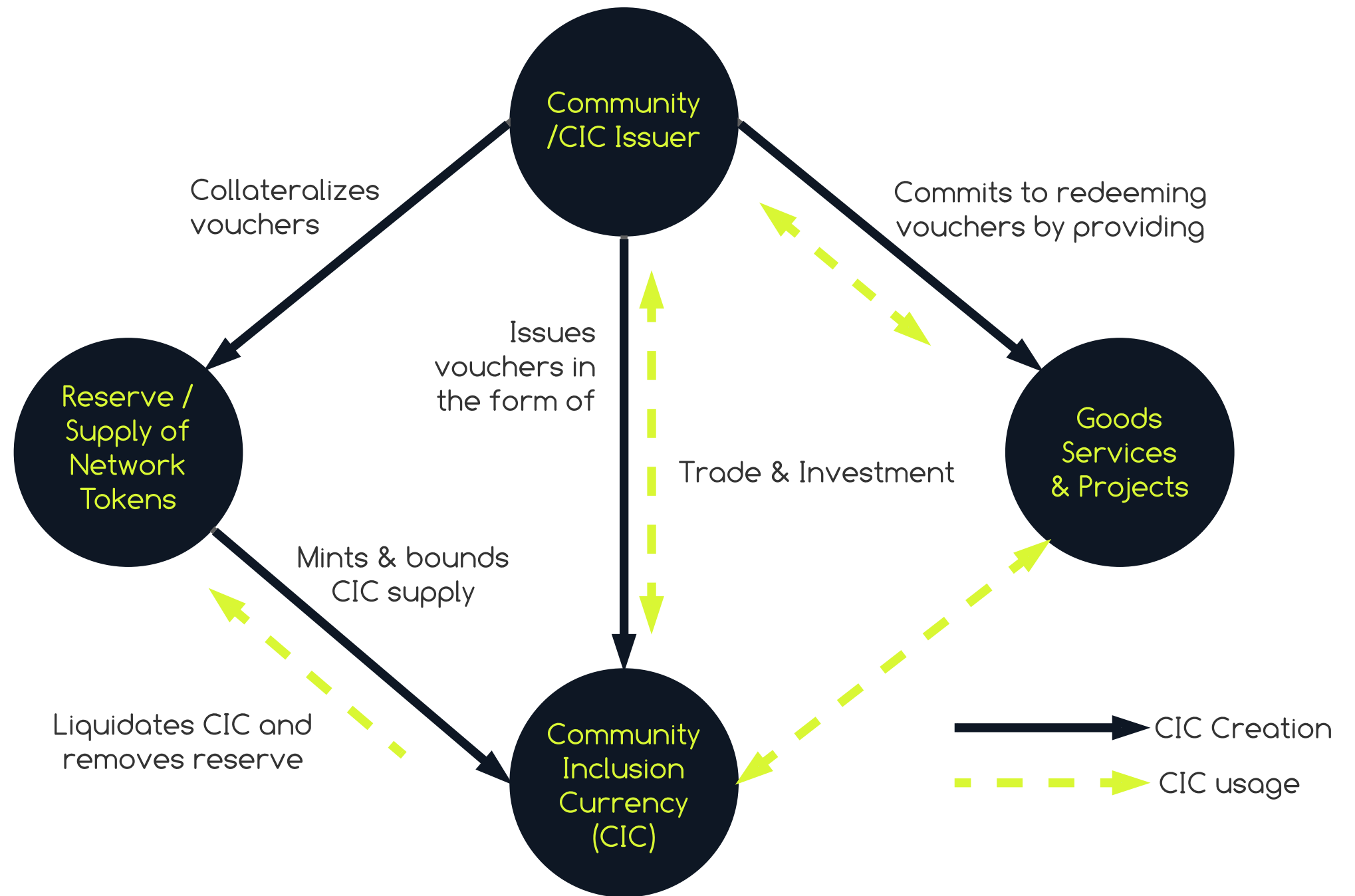
STIMULATE



DIAGRAMMING FLOWS

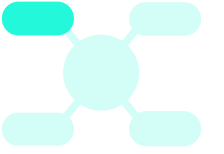
In a **Community Inclusion Currency (CIC)**, a group that is representative of local businesses and stakeholders comes together to form an agreement as to an amount of futrely produced goods, services, and projects that they would like to “mint” into currency. They then agree to provide these goods, services, and projects and redeem the currency for them. Additionally, the currency is collateralized with a pool of reserve tokens that can be created or seeded by community members or external donors. The choice of reserve or network token can enable the CIC to connect with a network of other CICs or fiat money.

Diagram and captions based on conversations with Will Ruddick





STIMULATE



POSSIBLE FUTURES

- 1 Cities battling high rates of homelessness experiment with a "housing first" policy that distributes transferrable rental vouchers to people experiencing homelessness and accepts these vouchers back in payment for taxes.
- 2 Small towns around the US experiment with local energy microgrid systems, each with a currency platform that tracks and auctions flows of generation and consumption across the network. In some towns, mutual dependency on this shared resource has proven an effective community unifier.
- 3 The travel industry has recovered from the 2020 economic crisis with help from the World Tourism Organization, which developed a time sensitive digital voucher, issued via an online accommodations and hospitality marketplace. Vouchers used within one month of issue can be redeemed at 20 percent above cost, and all vouchers lose five percent of value for each month after issue.

WHAT COULD GO WRONG?

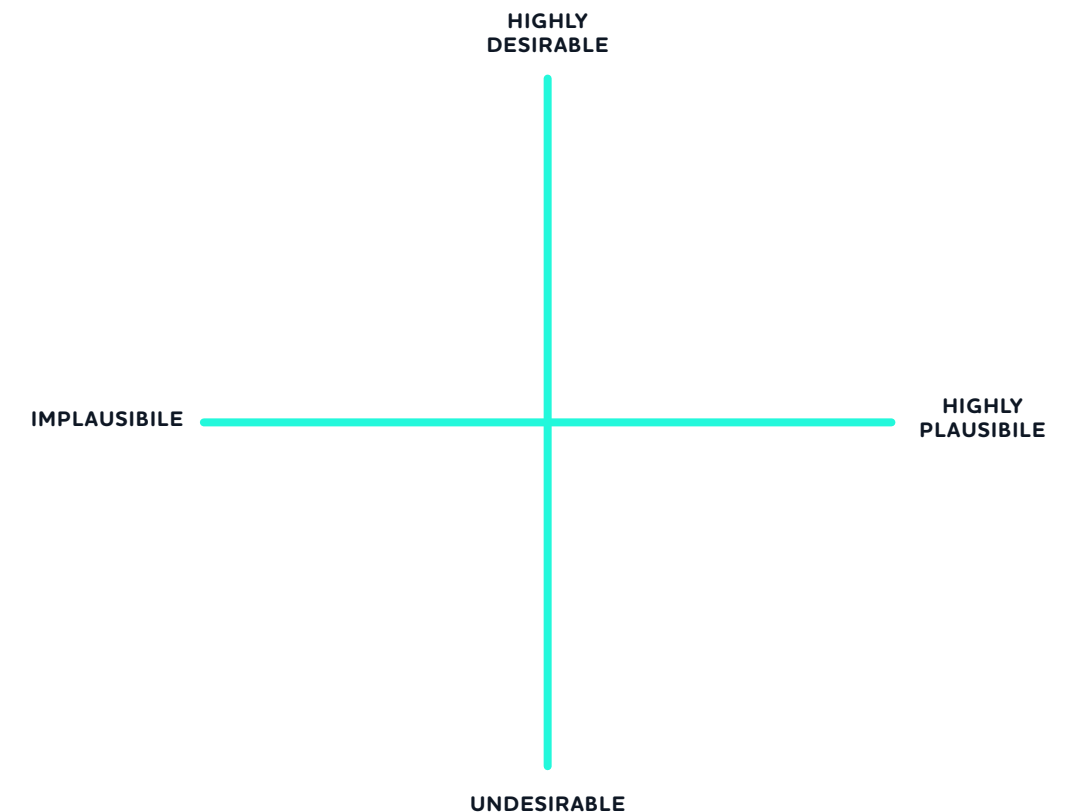
Are stimulative currencies too small-scale to meaningfully influence wealth disparities?

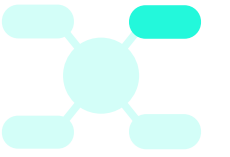
Do stimulative currency designs address what really matters in economic relations?

How might stimulating economic growth in one area have unintended consequences in other areas?

WHAT FUTURES DO YOU WANT TO SEE?

Consider the three possible futures on the left and mark scenarios **1**, **2**, and **3** on the graph indicating how plausible and desirable you believe each scenario to be.

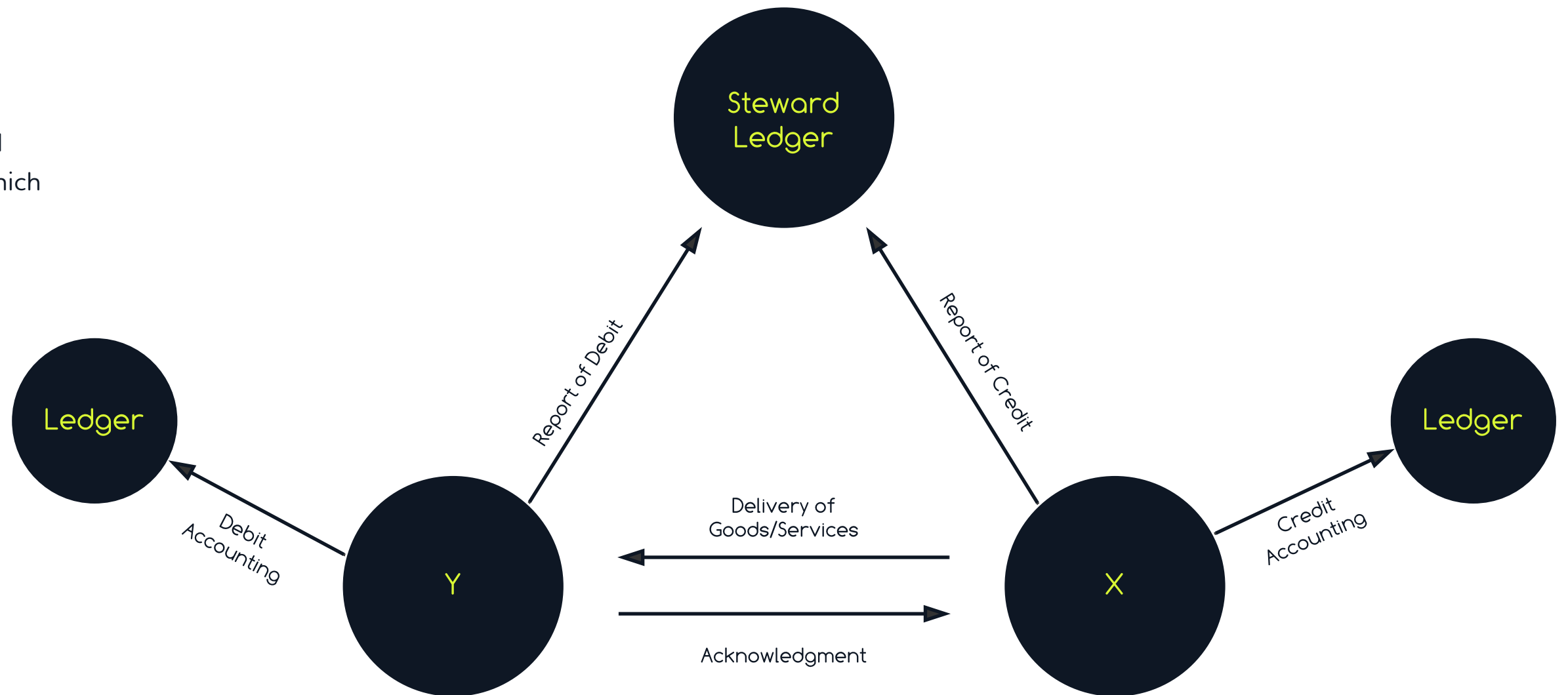




DIAGRAMMING FLOWS

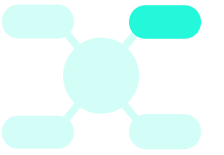
In **mutual-commitment and time-banking systems**, credits and debits are created when an exchange is made among individuals or organizations within a defined network. The balance of all accounts is always zero. This diagram illustrates an as-yet unimplemented agent-centric version of these systems in which X and Y each hold records of their own transactions.

Diagram based on conversations with Michael Linton





CARE

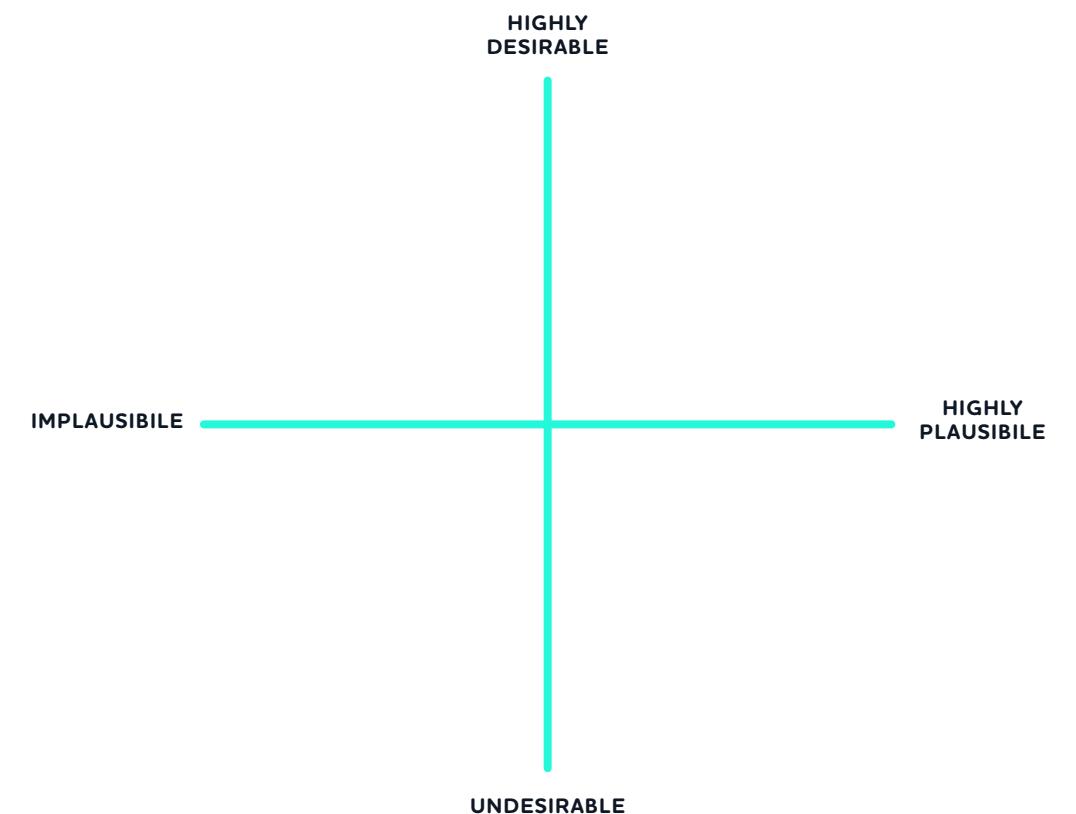


POSSIBLE FUTURES

- 1 In the wake of the pandemic, Care2Coin, the intergenerational time-banking program, sparks a caring revolution around the US. Participants log the time they spend caring for children, the elderly, and others, creating stronger intergenerational relationships and enabling easier access to care for those who need it. Banked time can be “withdrawn” and used for other care services. For example, the Care2Coin that John earns caring for elders in his community is transferable to his niece Mary who uses it for child care for her two-year-old.
- 2 Willamette Valley Food Hub has radically expanded the Community Supported Agriculture model by creating a regional credit/debit system that connects farmers and ranchers to processors and retailers. The Hub facilitates investment in local food production, on the one hand, and the distribution of food to participating organizations and their employees, on the other, bolstering regional resilience.
- 3 Seeking to redress Portland’s history of and legacy discrimination, the city’s first Black mayor launches the Portland Wellness Index to systematically track quality of life across all residents, with detailed demographic and neighborhood-based segmentation. Available quantitative data on housing, incomes, policing, and other public services are synthesized along with newly collected qualitative data on life experiences and future outlooks.

WHAT FUTURES DO YOU WANT TO SEE?

Consider the three possible futures on the left and mark scenarios **1**, **2**, and **3** on the graph indicating how plausible and desirable you believe each scenario to be.

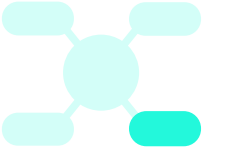


WHAT COULD GO WRONG?

Does quantifying care diminish its spiritual, personal, social, or cultural value?

How might monetary assumptions skew the design of mutual exchange systems?

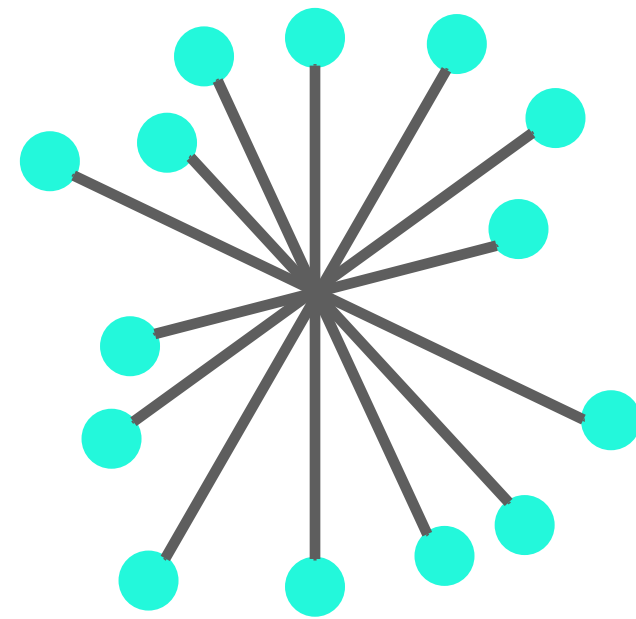
Can well-being be quantified?



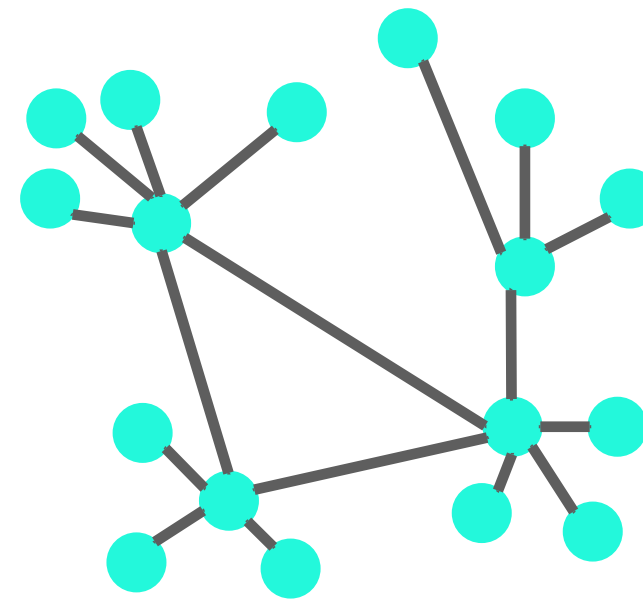
DIAGRAMMING FLOWS

In the systems that we have categorized as **coordination currencies**, designers seek to enable decentralized and distributed learning and doing.

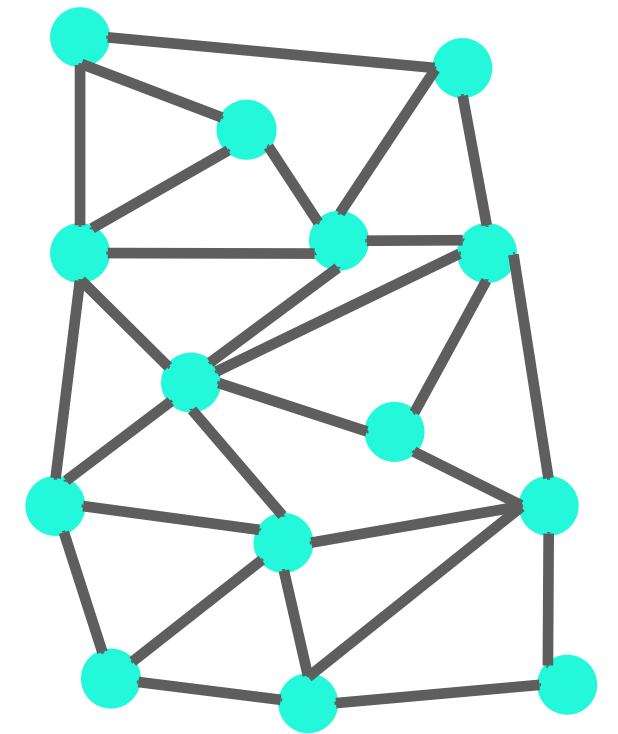
Diagram adapted from Paul Baran (1964)



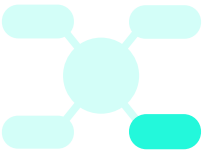
Centralized



Decentralized



Distributed



POSSIBLE FUTURES

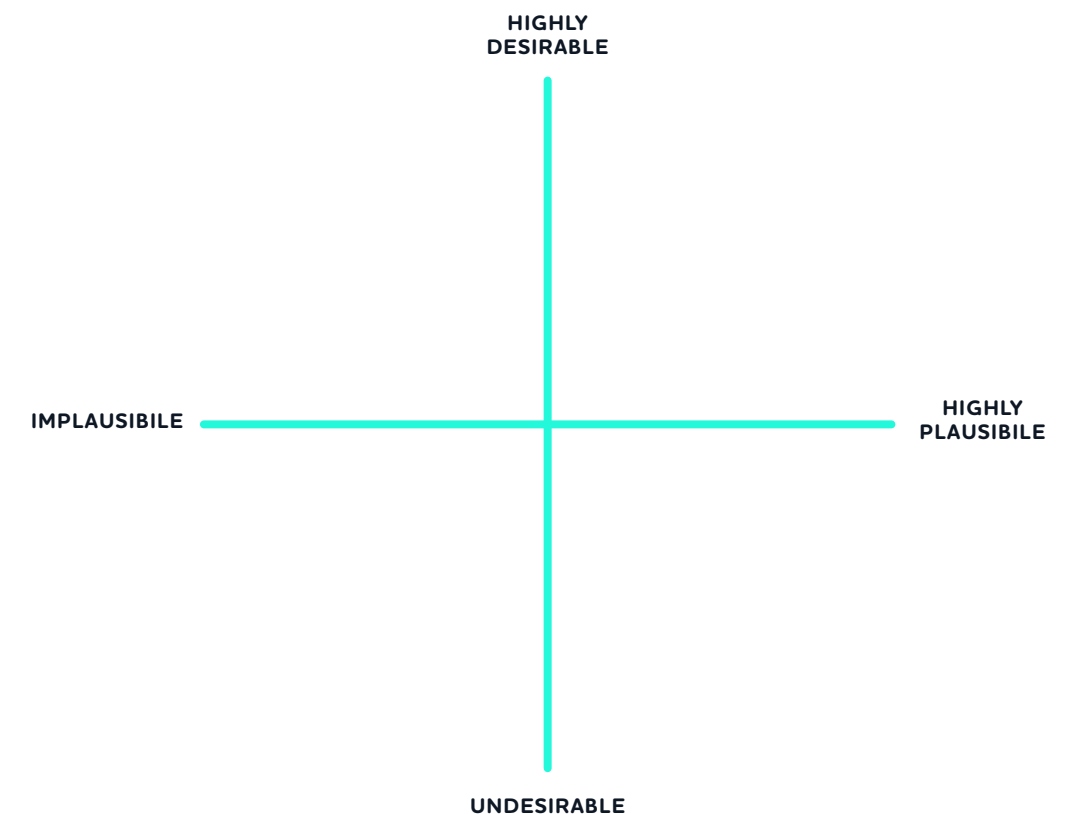
1 In a bid to bolster trust in public health science, the World Health Organization adopts the Credibility Index developed by the newly formed Open Science Initiative. The transparent, reputation-based system is used to create context for research on scientific questions. Credibility is allocated to participating scientists and specific proposals by their peers and amalgamated into a numeric Index, enabling the general public to see how research is perceived within a scientific community and how scientific understandings evolve and shift over time.

2 A strong-privacy, ad-free, micropayment-based World Wide Web alternative gains traction when Google successfully migrates to the new business model. Google quickly eliminated ads and data mining and added payment-linked private accounts to its searches, charging users based on time spent and pages viewed. Social media dinosaurs Facebook, Instagram, Twitter, and TikTok are rapidly being replaced by more nimble social networks.

3 In the post-pandemic era, defunkt Detroit restaurants and cafes are being bought up by the new Cafe Collective which hopes to revitalize the Detroit food and coffee scene using a cooperative model. The collective as a whole benefits from a polycentric approach wherein multi-scale decision making and employee equity accounting are streamlined by new digital coordination tools. This diverse tool set allows individual venues to retain their character and autonomy while benefiting from the stability and support offered by the Collective.

WHAT FUTURES DO YOU WANT TO SEE?

Consider the three possible futures on the left and mark scenarios **1**, **2**, and **3** on the graph indicating how plausible and desirable you believe each scenario to be.



WHAT COULD GO WRONG?

How might coordination currency designs stimulate ingroup-outgroup tribal effects?

In what ways might coordination designs consolidate decision making power rather than distributing it?

What social impacts might an emphasis on reputation as a currency have?

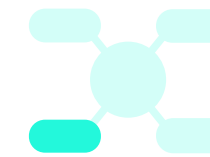
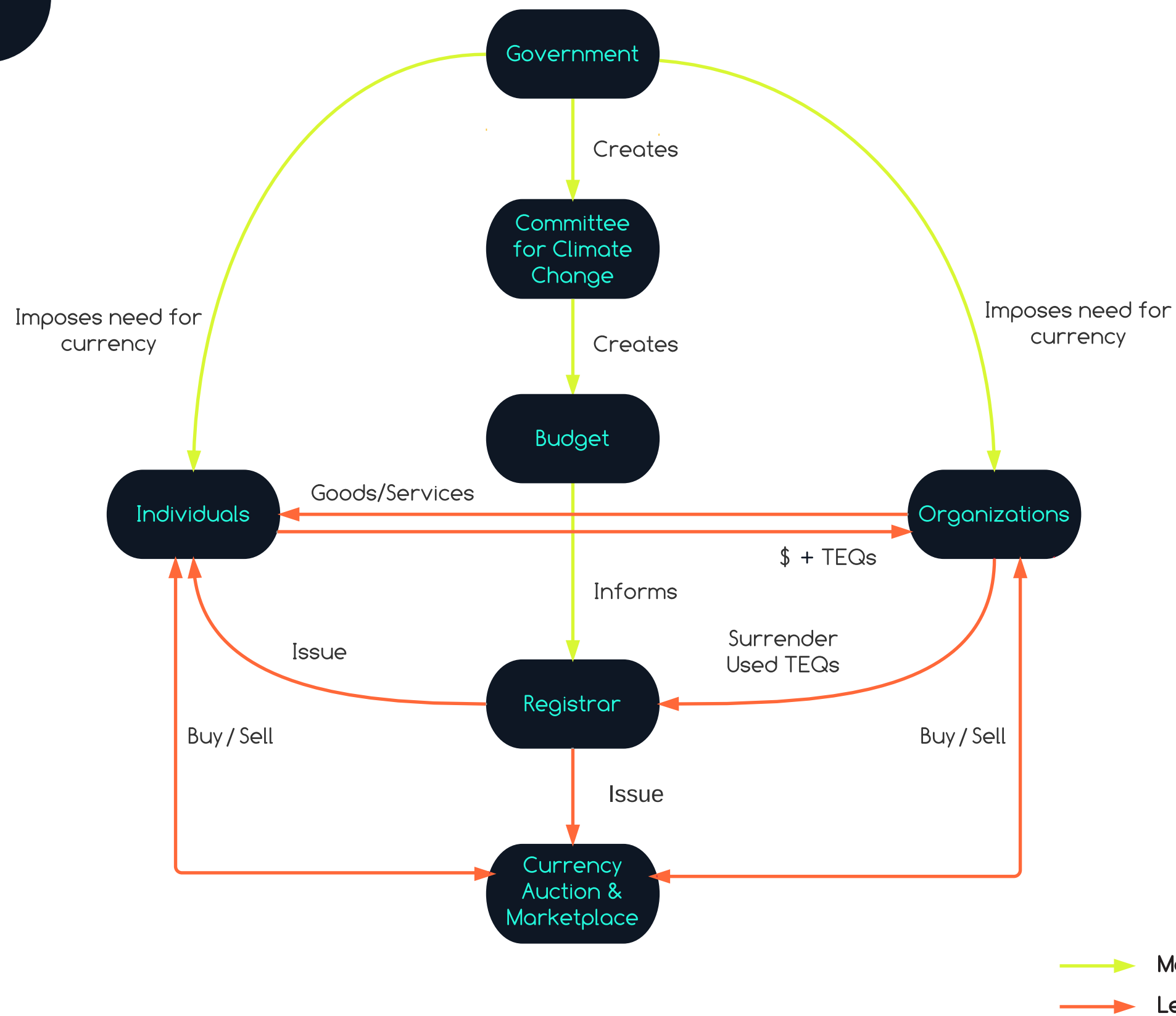


REGULATE

DIAGRAMMING FLOWS

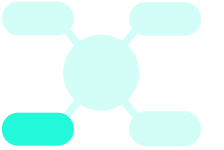
In a **Tradable Energy Quotas (TEQs) system**, a governing body imposes the need for TEQs in all carbon dioxide producing transactions. TEQs are distributed according to a carbon budget, ensuring that aggregate consumption meets national carbon reduction targets. Adults are issued weekly TEQs, which they can use for direct purchases of carbon-rated energy (fuel or electric) or sell into the marketplace. Organizations (public and private) require TEQs for all energy-consuming operations and can purchase them from the marketplace.

Diagram based on an as-yet unimplemented proposal of The Fleming Policy Centre





REGULATE



POSSIBLE FUTURES

- 1 The carbon sequestration credit incentive system has spurred big shifts toward regenerative business models. Integrated farming practices are rapidly replacing monocultures and coastal ecosystems are rebounding as ocean kelp farming has become more feasible and profitable.
- 2 In regions that depend on groundwater for drinking, farming, or industry, modeling estimates of subterranean water-levels are tracked and updated as seasonal reports, across all major media. Reports estimate both total quantity for the groundwater basin and annual withdrawals as a percentage of total quantity. Use of drip irrigation systems in agricultural areas is on the rise.
- 3 Newly built “single-resident occupancy” housing complexes, where residents have private rooms and shared kitchens and other facilities, have contributed to the progressive wealth distribution function of the carbon credit trading program. These carbon-efficient complexes enable residents, including the formerly houseless, to sell their carbon credit allotments and realize sizable financial gains.

WHAT COULD GO WRONG?

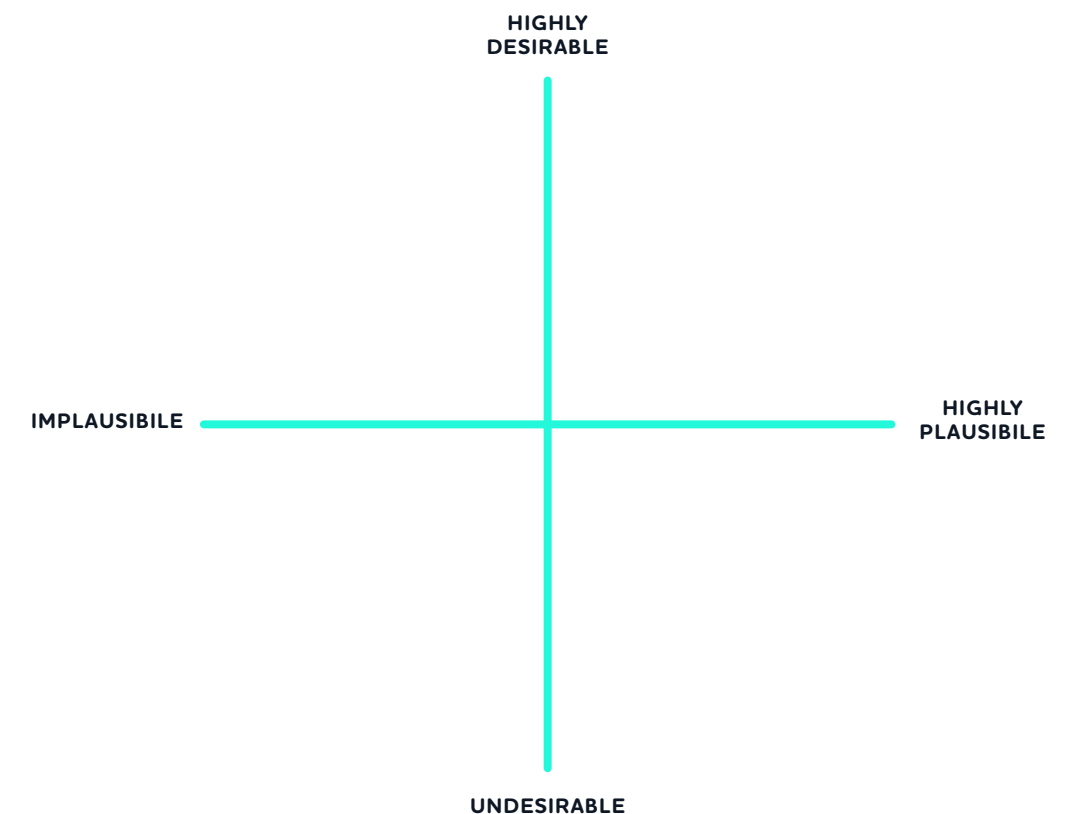
How might regulatory currencies be undermined by other alternative currencies?

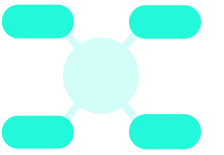
Could regulatory currencies be used in ways that either counteract the intended result or create a new problem?

Does the top-down nature of regulation currencies reinforce current paradigms rather than create new ones?

WHAT FUTURES DO YOU WANT TO SEE?

Consider the three possible futures on the left and mark scenarios **1**, **2**, and **3** on the graph indicating how plausible and desirable you believe each scenario to be.





STIMULATE



CARE

TIME BANKERS WANTED FOR HOME ASSISTANCE

- Earn one token per hour of service
- Transferrable tokens never expire
- Save for your retirement or gift to your loved-ones
- Nationwide network!

CARE2COIN

ADS FROM THE FUTURE

Within each of these possible futures lies potential opportunity. These “ads from the future” illustrate what some of these opportunities may look like — a peek into a currency polyculture.

WEEKLY CARBON CREDIT AUCTION!

Gain more carbon purchasing power or **sell** your unused tokens!

Join the **Cafe Collective!**

Multi-Scale decision making!
Internal Financing Available!

Did your business get hit hard by the covid?
Many heads are better than one and together we'll make it through this!

OPEN

REGULATE

COORDINATE

ENDNOTES

WHAT IS CURRENCY?

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"Lovely dinner" inspired by:

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"Mistake clockworks for time" inspired by:

Rasheedah Phillips. 2017. Enter Afrofuturism: Dismantling the Master's Clock[work] Universe. Onassis Foundation. <https://www.youtube.com/watch?v=yFqA4Nu5DX4>

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<https://hbr.org/2007/07/six-rules-for-effective-forecasting>

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<https://er.educause.edu/articles/2019/3/five-principles-for-thinking-like-a-futurist>

Ancient coinage systems:

David Graeber. 2011. Debt: The First 5,000 Years. Melville House Publishing. (Graeber embellished Geoffrey Ingham's "military-coinage complex," p.229.)

Contemporary usage of the triangular, tax-driven currency design:

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Markets and capitalism:

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1930s currency innovations, contemporary adaptations:

Chiemgauer (centered on Bavaria, Germany) is a contemporary example of a perishable or demurrage currency.

Sardex (in Sardinia, Italy) is a contemporary example of a business-to-business mutual exchange system.

Tenino, Washington:

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ENDNOTES

THE ECOSYSTEM OF CURRENCY INNOVATION

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Organizing the ecosystem:

Two inspirations for this way to organize the ecosystem (stimulate activity, regulate activity, facilitate care, coordinate learning and doing) are Jean Russell's definition of currencies as encouraging or hindering, and Michèle Friend's "policy compass," which turns on three qualities of excitement, suppression, and harmony.

Michèle Friend. 2019. A Policy Compass for Ecological Economics (p.71-86) in Ecological Economics and Social-Ecological Movements: Science, Policy and Challenges to Global Processes in a Troubled World. Universidad Autónoma Metropolitana.

Plausible/desirable ratings inspired by: Joel Barker (<https://www.implicationswheel.com/>)

CREATIVE CURRENCY FUTURES

Inspired by currencies and advocates active in 2020, including:

Stimulate: Schumacher Center, Grassroots Economics, Brazil's Mumbuca, UMKC's Buckaroo

Regulate: The Fleming Policy Centre, ReGen Network, 350.org

Care: Fureai kippu, Sardex, Credit Commons, Michael Linton, Marilyn Waring, Mark Anielski

Coordinate: Sacred Capital, Democracy Earth, Hylo, Coil, DEIP, Copiosis

Ads from the future inspired by: Stuart Candy (<https://futuryst.blogspot.com/>)

THANKS FOR THE CONVERSATIONS

David Bollier

David Bovill

Brad deGraf

Scott Ferguson

Anthony Friend

Michèle Friend

Rohan Grey

Perry Gruber

Jakub Lanc

Michael Linton

Sarah Manski

Oliver Markley

Marc Pierson

Sarah Rothberg

Will Ruddick

Jean Russell

Siddharth Sthalekar

Benjamin Wilson

Carlos Yarza

Marina Zurkow



A project of the class of 2021
Collaborative Design MFA / Design Systems MA
Pacific Northwest College of Art

WE ARE

Humaira Tasneem

Jono Melamed

Betsy Lance

Jake Crahan

Samantha Caruthers-Knight

SJ Bowden

WITH

Howard Silverman