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Credit creation with Half-life currency and Universal Basic Income

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What is half-life currency?

- In physics, half-life is the period of time it takes for half of a radioactive isotope to change into another nuclide by radioactive decay.
- In currencies, it is defined as the period during which the issuance volume is halved.
- Algorithm and data structure halve the total amount of currency in a specific period of time.
 - Half-life decrease starts on the day after the issue and decreases every day.
 - If the half-life period is 365 days, the total amount of currency would be "365 squared root of 2 ":1 compared to the next day.
- In physics, Half-life period of cesium-134 is 2 years, plutonium-239 is 24 million and 1100 thousand years, etc.
 - In currencies, the half-life can be adjusted by their issuing entities.

Another nuclide change in half-life currency

- For half-life currencies, another nuclear change is defined as a change to another currency with different characteristics.
- Algorithm that changes the daily half-life decrease to other currencies is another nucleus change.
 Example: Decrease in half-life is converted to unusable currency
 Example: Decrease in half-life changes to normal currency with no half-life
 - In the proposed UBI use, the half-life reduction changes to a normal yen that can only be used by the government for primary use.

Half-life currency exchange

- Exchange between half-life currencies is naturally expected.
- Not expected to be exchanged for non-half-life currency.
- Exchange of half-life currencies between different economies is assumed to be similar to normal interest rate arbitrage.

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Half-life Currency and the Principle of Value-Conservation

- Currencies with diminishing holdings are usually shunned. Conflicts with the principle of value-conservation.
 -) In fact, ministers in countries that proposed half-life currencies strongly opposed.
- the value-conservation function is perceived as lacking, of the three functions of value-conservation, exchange, and scale.
 - In fact, value is conserved and its value decreases half-life.
 - If it has a half-life of 44.68 billion years like Uranium-238, it will definitely preserve its value longer than Yen.

Currency should have a half-life.

- The value of all goods that a currency is exchangeable for decreases over time.
- I question it is somehow wrong that only currency is immutable in value.
- Bread is sold to obtain currency. The seller's bread decreases in value every day.
- Can we use the currency with which we sold the bread to exchange vegetables the next day for the same value?

What if it were the other way around? The currency in which you sold your vegetables for the same value in exchange for bread two weeks later is not a good idea.

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Is it wrong that currency preserves value immutably.

- In the exchange of goods for goods, only the currency does not decrease in value while both decrease in value.
- Isn't this what creates the gap between the rich and the poor?
- The oil sold by Rockefeller's Standard Oil in 1870 has burned out long before.
- Rockefellers' Financial Assets Expand with Interest Rates, Not Declined

Propose Half-life currency

Introduce a half-life for the currency as tools of exchange, since the goods being exchanged have a half-life.

- If the half-life is long enough, such as 10 or 20 years, it can function as a normal currency in real terms.
- However, localization of wealth through inheritance of financial assets and other means becomes more difficult.
 - It will affect the chest of drawers, but if the half-life is long enough, it will serve as an emergency reserve.

Psychological advantages of half-life currency not found in normal currency

- If the half-life decrease curve is tighter than the interest rate, consumption is promoted (facilitative exchange function).
- Half-life currency functions: measure, half-life value-preservation, exchange, exchange facilitation.

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Is a half-life currency a deflationary currency?

- In a single year, a half-life currency is deflationary because the quantity of the currency decreases by half the amount.
- In practice, the amount is issued each fiscal year, taking into account the decrease in the previous year's amount.
- half-life currencies can be issued with inflation targeting as well as normal currencies.

Another adjustment factor, such as the conversion of half-life decrease to normal currency used only by the government for the change in nuclides by half-life decrease.

Countries with 2% inflation target already have a half-life economic philosophy

• A 2% inflation rate means that the value of the currency is halved against the value of goods in 35 years.

 \odot 35th power of 1.02 = 1.999889552664455

Half-life of 35 years in the sense that the purchasing power of goods of a person with a certain amount of currency is halved in 35 years.

However, half-life currency is inherently deflationary because of the decrease in total volume, but only adjusted annually by the amount of currency issued.

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Negative-Interest Rate

- Half-life currencies are considered negative-interest currencies.
- $T_{\rm H}$:Half-life time, r:interest

$$T_{\rm H} = \frac{\ln\left(\frac{1}{2}\right)}{\ln(1+r)}$$

$$r = \exp\left(\frac{\ln(\frac{1}{2})}{T_{\rm H}}\right) - 1$$

Annual Interest (%)	Half-Life (year)
-1	69.66
-2	35.00
-3	23.45
-5	14.21
-7	10.24
-10	7.27
-15	4.96
-25	3.11
-50	1.00

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Discrete mathematical assumptions in implementing half-life currency

Basic assumptions of half-life currency implementation (characteristics

that all digital assets should inherently have).

- 1. with monotonic data structure
- 2. only monotonicity algorithms can touch the currency

Implementation Assumptions

1. Nakamoto (2007) is algorithmic monotonicity, not mathematical monotonicity.

2. Tomabechi algorithm (1990,1992) is mathematically monotonic.

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To achieve the domestic economy and "create an affluent society."

Central bank digital currency(CBDC) with half-life currency and universal basic income(UBI)

Effectiveness of Basic Income (review)

Special fixed benefits and support for the Covid-19 Disaster

- \bigcirc One-time only payment is insufficient. It also went to savings.
- \bigcirc Support funds only for certain industries are unfair.
- \bigcirc \rightarrow The solution is "regular disbursement of benefits to all."

Universal Basic Income (UBI) Advantages

- \bigcirc 1) Fair to all citizens \Leftrightarrow "Travel Support" is unfair. Why not 2 vaccinations?
- O 2) Eliminate the need to work at a job you don't like or work in the black in order to earn a minimum income.
- 3) Easier to do economically risky work such as entrepreneurship, research, art, etc.
- \bigcirc 4) Possibly more effective than welfare, etc.

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Effectiveness of Basic Income (review)

- Turning point of the times, moving to "an era in which AI eliminates the need to work".
 - Introduction of UBI does not reduce work ethic (based on results of social experiments in several countries)
 - \bigcirc The meaning of work changes.
 - From "source of income" to "for what I want to do and for the benefit of society"
 - A profession is the function it provides to society.
 - The citizen's use of time is changing from a have-to to a want-to approach.
 - Productivity of each individual increases, which in turn increases the productivity of society as a whole.

Proposal for Realization of Basic Income

"Central Bank Digital Currency(CBCD)" and "UBI" with half-life currency

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1] Proposed half-life currency

(Background) Not naturalness of currency value-preservation in natural phenomena

- Everything in nature depreciates.
- \bigcirc It is not natural that only money preserves value.

Silvio Gesell, an early 19th century economist and businessman, "money of diminishing value"

- Interest rates are justified because they do not depreciate, capitalists hoard wealth, and Workers have no source of income due to the recession.
- When money depreciates, capitalists consume and engage in activity, and the economy improves.
- S. Gesell: "money of diminishing value," whereas this proposal is "money of diminishing quantity."

1] Proposed Half-life Currency

(Mechanism) Currency decreases in quantity over time due to its half-life.

 \bigcirc If the half-life is 365 days, the amount of currency is

the ratio is "365 squared roots of 2:1 compared to the next day."

\bigcirc For \$100, the mount becomes

The next day, \$99.81
A week later, \$98.68
55 days after, \$90.08*.

- Six months later, \$74.92
- After one year, \$50,0
- After two years, \$25.0





* Since the half-life currency is exempt from sales tax to avoid double taxation in practice, it is advantageous to the store until 55 days.

2] Adaptation of half-life currency to central bank digital currency

Implementation

-) Each citizen has a digital wallet.
- \bigcirc Wallet app for each smartphone or wallet device distributed by the government
 - In Japan, assuming a smartphone penetration rate of 80%, and distributing 3,000 yen per unit to 20% of the population (24 million people), 72 billion yen
- Currency that decreases in value slightly every day.
 - A system in which owners "lose money if they don't use it in a hurry" and "gain money if they use it quickly".

The purpose is to cover the public cost of living. It also encourages private consumption and stimulates the economy by not allowing people to save money.

- O (Not Allowed) Purchase of financial instruments or instruments that preserve the value of assets, such as precious metals or real estate.
- (Not Allowed) Exchange with fiat currency such as Yen, Dollar, Euro
- Restrictions on the use of utilities such as food, clothing, daily necessities, lifelines, etc.
- Encourage stimulate the economy by ensuring that currency that has not been circulating in the market due to savings and investment will be available in the market.

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2] Adaptation of half-life currency to central bank digital currency

- Decrease is automatically transferred to the central bank
 - Central bank remittances assume a half-life change to normal fiat currency that does not decrease in volume.
 - O From the government's perspective, it looks like "revenue" and from the public's perspective, it looks like a "tax".
 - \bigcirc Comparison with consumption tax
 - Consumption tax = "penalty for consuming", leads down consumption
 - Half-life decrease = "penalty for not consuming", encourages consumption
 - Prompting consumption behavior
 - Stability as a financial resource
 - Decrease by half-life = automatically determined by issuance volume and not influenced by the economy
 - Half-life decreasing revenue provides a stable source of revenue and allows for half-life adjustments.

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3] Adaptation of half-life currency to UBI

Financial resources for basic income

-) Use QE, not Social Security spending.
-) In the year 2021,
 - The Bank of Japan(BOJ) printed 200 trillion yen for the special account and 35 trillion yen for the general account deficit, plus In addition to 200 trillion yen in the special account and 35 trillion yen in the general account deficit, the BOJ printed 455 trillion yen as QE. Total 690 trillion yen (\$6 trillion, 115 yen to the dollar).
 - European Central Banks(ECB) did \$10 trillion, FRB did \$9+ trillion of QE Quoted from European Finance Association.
- If all citizens receive 200,000 yen per person per month, 300 trillion yen will be generated per year.
 - Annual half-life currency issuance is 300 trillion yen.
 - Remittances to the treasury will be 150 trillion yen in (2nd year), 225 trillion yen in (3rd year), 262 trillion yen in (4th year), and eventually approaching about 300 trillion yen.
 - The general account for FY2021 is 106.6 trillion yen, which is enough to cover.
 - No need for conventional revenue and no need to take taxes (tax-free state).

3] Adaptation of half-life currency to UBI

- (Payment Method) Monthly credit creation by the central bank directly into the wallet of each citizen.
 - O In the Bank of England estimates that direct purchase operations from the public would consumption behavior of the public will be stimulated and GDP will rise by 3%.
 - (Comparison) National Perspective
 - \bigcirc QE and ETFs
 - Money is given to some large corporations, foreign government bonds, and foreign-owned companies.
 - Or, left unused in megabanks' BOJ checking accounts.
 - → Half-life currency UBI > Money is given directly to the people

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4] Stores don't like half-life currency?

- Half-life decrease in effect functions as a tax. Exempt from sales tax to avoid double taxation.
- If it is sent to cost or other payment within a few days of receipt, the price is reduced by the amount of consumption tax (currently 10%).
- If the consumption tax rate is 10%, half-life currency receipt is more advantageous if it is sent to payment within 55 days.
 - If an employee chooses to receive half-declining currency (or part of it) as salary, he has a 55-day advantage over consumption tax payment.
- Within the correlated number of days between the consumption tax rate and the half-life reduction rate, there is always an advantage for both the store and the employee.

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5] For the Japanese government to introduce

Functional requirement

- Discrete Mathematical Infrastructure Condition.
 - Ensure data structure redundancy and hardware/software diversity
 - Only monotonicity algorithm accesses data structure
 - Cyber resilience at all layers of the platform (DevSecOps)
- (Personal use) Only smartphone's app
 - For those who do not have a cell phone, the government distributes a special device.
 - Assuming a smartphone penetration rate of 80%, we can assume that 20% of the population, or 24 million people, will receive a smartphone. Assuming distribution of 3,000 yen per device, initial cost of 72 billion yen
- (Implementation) Already be researched and development
 - Be provided freely.

6] (Summary) "To Achieve a Prosperous Society" Introduction of CBDC and UBI with half-life currency

Introduction

- Distribute a digital wallet app or device to each citizen.
- O Provide half-life digital yen for 200,000 yen per month to each citizen's wallet.
- O The financial resources are from QE. The amount that has been given to foreign government bond purchases and foreign companies will be given directly to the people.
- Can stimulate the economy and increase GDP
 Can encourage consumption behavior by decreasing daily.
 Encourages private consumption because of restrictions on use, such as the inability to purchase financial products.
- 🔿 👍 Public understanding
 - Because a minimum income is regularly earned, A new way of working will be available.
 - The money that was going to big companies, foreign-bond, and foreign-owned companies, is going to serve to each citizen.
 - Wealth gap between rich and poor to be eliminated in an environment.

- ➡ 👍 Can be a tax-free nation
 - The decrease is automatically remitted to the treasury, thus raising revenue and eliminating the need for taxes.
 - Remittance volume is fixed according to issuance volume, thus stable revenue.
- Consumption Tax: From "a penalty for consuming" to "a penalty for not consuming

➡ 👍 Low hurdle to start introduction

- No new financial resources are needed. and can be started within the current system.
- Research and development has already been done and can be provided free of charge.

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Example of long half-life currency

Natural Resource-backed currencies collateralized by resource-rich countries

- Natural resource-backed currency" as an example of a long half-life currency with a halflife in the range of years or decades.
- We've been proposing this to several resource-rich governments since about 2014, before the Covit-19.
 - Issue resource-backed currency without mining underground resources
 - \bigcirc Be issued in units of kg of reserves.
 - O Since directly mining its reserves is not needed, its own value is maintained due to no outflow of resources to other countries.

Only mine resources when prices fall.

- Mining resources only if the market price of the resource-backed currency falls below a pre-determined.
- O No need to excavate underground resources while the economy continues to operate soundly and the exchange rate is maintained sustainable.

Looking beyond Japan to the world "to realize an affluent society."

Currency that deals only with informational value "Informational-value Currency"

Three Principles of Informational-value Currency

- Freshness Principle Freshness of information is important (same as perishable food) Assumption of half-life decrease.
- Replication Principle The receiver creates currency for the value of the information. The amount held by the sender is not reduced.
 - Exchange Principle The value of one piece of information can be exchanged for the value of another.

The replication principle and half-life of informational-value currency

- Sending information does not reduce the amount of currency held (you can choose to increase the sender's portion as well).
- Receipt of information increases the amount of currency held (opposite of purchase with regular currency).
- Compulsory education and higher education are periods of increased informational-value currency holdings.
- Lifelong learning will make you richer and richer. However, if you don't learn, it decreases half-life Japanese higher education can be offered to children around the world as an informational-value currency activity.
- Education can be provided worldwide if universities accept informational-value currency as online educational tuition.
- Online education at Harvard University and Komazawa University with locally obtained informational currency.
- Real classes are combined with fiat currency and the physical cost is borne by tuition, but only the cost is borne by tuition, which is low.
- Higher education for children around the world with the informational-value currency gained from volunteer teaching online free classes.

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0] Inequality is widening around the world.

- The top 2,100 wealthiest people in the world have as much money as the other 4.6 billion people.
 - Meanwhile, 2 billion people live in dangerous poverty.

The reason is that "Marginal Cost does not work" in the information space.

- Example: digital data is information space
- 🔘 Example: interest rates are information space, compound interest begets compound interest.
- O Example: derivative financial instruments (derivatives) trading is an information space
- Market capitalization is informational space value, unlimited corporate expansion through stock exchange.
- Supergiant companies have transcended the state, supranational institutions are in control, and democracy is on the verge of demise.

As I feared 30 years ago, we are now in a world where physical space is completely dominated by those who create informational space values that do not work with marginal cost.

In 1992, predicting that a group of companies with no marginal cost would dominate the world's wealth in 30 years, the University of Tokushima and the Just Systems Fundamental Research Institute proposed and developed the Bechi Unit, a digital currency for exchanging only information values. In 1992, the University of Tokushima and the Just Systems Research Institute proposed and developed the Bechi Unit, a digital currency that exchanges only information values, and developed and demonstrated the first digital currency (cryptographic asset). He also proved that the Tomabechi algorithm, a monotonicity algorithm, has perfect monotonicity in discrete algebraic geometry.

1] It is necessary to separate physical value from informational value.

- (1) Price is composed of physical value and informational value.
 - Factors that make a difference in selling price are informational values such as brand and design.
 - (2) Marginal costs do not work for information value, so many products hurt daily lives for all but the highest income earners.
 - O food, clothing, and shelter.
 - necessities of life
 - Lifelines such as electricity, gas, water,
 - and internet



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1] It is necessary to separate physical value from informational value.

- (3) The money earned in informational space is being used to buy finite land, food, water, and water sources in
- physical space.
 - O Pound sterling during the East India Company, yuan for AIB, etc. can be printed for foreign countries indefinitely because there is no inflation in the issuance of their own currency in other countries.
 - If the big companies monopolize the finite resources of the earth with their unlimited wealth obtained through business (financial, market capitalization, net) where marginal cost does not work, the gap between the rich and the poor will widen. Their collective international supranational institutions advance the logic of increasing this more and more. Global warming interests are one of them.



Foreign currency

issuing rights

4) Separate physical value from informational value.

2] Proposal for an "informational currency" that deals with informational values.

- Feature 1: Currency issued with an based on informational value
 - Informational value of "knowledge"
 - Knowledge of coaching (POC of coaching coins)
 - music, art and other arts, sports knowledge/techniques
 - School education (educational coins), etc.
 - \bigcirc The value of sustainable "action"
 - Carbon dioxide capture activities
 - Purchase of food just before expiration date, etc.
 - Informational value of "service" in corporate activities
 Japanese trains provide the service value of running on time and on schedule.
 Courier companies provide the service value of delivering goods safely, at the right time and place, etc.

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2] Proposal for an "informational currency" that deals with informational values.

- Feature 2: Decrease in value over time
 - Everything in nature is worth less.
 - Food loses freshness and eventually spoils.
 - News articles in newspapers are also becoming less novel and rare.
 - Knowledge learned through study becomes outdated.
 - However, features of the decrease can be defined by the issuer or experts.
 - Basic knowledge, like the four arithmetic operations and letters.→ Do not decrease
 - Bibles, classics, and other items of universal value → Set a lower limit
 - Currency returned to central bank→ Does not diminish in value once in the treasury



2] Proposal for an "informational currency" that deals with informational values.

- Feature 3: Not exchangeable for fiat currency
 - Since the informational currency is used in the information space, it cannot be exchanged with fiat currencies such as dollars, yen, and euros.
- Feature 4: Informational currencies can be exchanged with each other.
 - Different informational currencies are inter-changeable.
 - The exchange rate is based on agreements among central banks,
 market principles, etc.

3] Example of informational currency

- (1) Knowledge-based currency (<u>knowledge currency</u>)
- (2) <u>CO2 coins</u> issued as currency based on captured CO2
- (3) <u>Food-loss coins</u>, to solve food problems
- (4) Exchange of sustainability-related currencies
- (5) Educational coins to improve living standards in developing countries

Currency for dealing with the informational value of "knowledge"

- Knowledge currency is <u>credit creation</u>, using the <u>acquired knowledge</u> as <u>collateral</u> <u>from</u> the <u>central bank function for</u> the <u>recipients of knowledge</u>.
- \bigcirc Background: A society where people who want to learn are unable to do so.
- By learning, you pay fiat currency as compensation in the past, but now you "obtain" a new knowledge currency.
- The knowledge currency you obtain can be used as payment for new learning.



- (POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)
 - About 200 participants, about 20,000 coins credit creation for coaching knowledge activities

Target to credit creation

- Seminars, books, movie content
- Coaching Sessions by a coaching certification holder

Amount of coins created per knowledge gaining behavior

Coins are issued by a central banking function according to rules established by an accreditation corporation (Coaching Coin Office).



- (POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)
 - User Flow
 - 1. gain knowledge
 - 2. application to the central bank
 - 3. central bank send coins
 - 4. check with your wallet
 - History of coaching activities
 - Holding amount of coin



Domestic in-house development, domestic servers High security high privacy messaging app Fort Talk."

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← 情報通貨	← ウォレット	← Wallet) コーチングコイン	← Wallet) コーチングコイン
情報空間の生産性は限界費用がゼロなため、 貧富格差を広げる要因の一つとなっている。		2022年10月25日 10:30時点の保持量	信用創造の申請
そのため、この社会課題を解決するために は、物理的な価値と情報的な価値に分けるこ とが重要であり、情報的な価値を扱うための 通貨の付組み(情報通貨)を提案する。情報 通貨の対徴を示す。	My アカウント:hkiZ5hns8VqkwSjq		活動目 2022/11/12 大分類 書格
特徴1)情報的な価値を本位とした通貨発行、 法定通貨との交換は不可(ペチユニット哲 学)	Q. 快索 通加		小分類 『オーセンティックコーチング』
特徴2)時間経過とともに価値が減少する通貨 (半減期通貨)	コーチングコイン 2,340 CC		信用創造されるコイン量(見込) 3.0 CC
特徴3) 情報通貨同士の交換	7-FERDAV 1,205 FC		自由メモ欄
ウォレット (管理者向け) 情報連負の管理		Action) 信用制造の申請 Action) 芝品 利用器型	信用創造の依頼をする
			40

(POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)

-) User Flow
 - 1. gain knowledge
 - 2. application to the central bank
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日付	アクティビティ項目	詳細	コーチ保持量	コイン量
2022/01/20	(創造)書籍の読了	2021/12/5 デジタル・ベー シックインカムで日本は無 税国家になる!	-	3.00 CU
2022/04/13	(創造)書籍の読了	2022/4/6 『オーセンティッ ク・コーチング』	-	3.00 CU
2022/04/11	(創造)動画の視聴	2022年1月7日 『なぜ成功 する人は人を惹きつけるの か?』	-	4.40 CU
2022/04/20	(支払)動画の視聴	2022年2月8日 日本ジャー ナリスト協会講演会	-	-4.00 CU
2022/08/16	(創造)コーチング合宿		-	33.00 CU
2022/02/07	(支払)セッション	B コーチ	1722.4 CC	-17.22 CU
2022/02/07	(創造)セッション	B コーチ	1722.4 CC	51.67 CU
2021/10/16	(創造)TPIE プログラム	x	-	13.00 CU
2022/09/14	(受取)セミナー受講	○○社 向けセミナー 60 分	1521.0 CC	9.28 CU
2021/09/20	(受取)セッション	○○社 Аさん	1555.3 CC	4.50 CU

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(POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)

- User Flow
 - 1. gain knowledge
 - 2. application to the central bank
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	(昨日分)						
۲	2022年11月10日						
		昨日	直近1週間	直近1ヶ月	2021年1月以降		
	保有量	5,094.59 CU					
	創造量	10.80 CU	23.30 CU	30.40 CU	921.83 CU		
	取引量	0.00 CU	149.01 CU	859.24 CU	6,073.65 CU		
	減少量	9.66 CU	66.68 CU	275.00 CU	2,297.65 CU		

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(POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)

-) User Flow
 - 1. gain knowledge
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(POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)
 () Trend 1) "Continuous learners" vs. "who have stopped to learn"



- (POC) "Coaching Coin," an informational-value currency for handling coaching knowledge (from November 2021)
 - O Trend 2: Comparison of "high retention" and "low retention" when the same amount of knowledge is learned.



3] Example (2) CO2 coins based on the amount of carbon dioxide recovered



- Credit creation of CO2 coins based on the amount of carbon dioxide captured.
- Joint research with the Carbon Capture Research and Recovery Agency (CRRA)
 - Representative Director and Head of the Organization, Mr. Kazekai Muraki
 - Direct Carbon Dioxide Capture (DAC) machine

Realization of an economic zone through carbon dioxide capture

- encourage direct actions in the form of CO2 capture, rather than condoning CO2 emissions by paying for them.
- fiat currency + payment mechanism in CO2 coins
 The amount of CO2 emitted by the time the production reaches you is paid in CO2 coins.

(ii) Credit (i) **CO** creation capture CO *C*02 OFE 300 ven 120 yen/L +10 coins + 200 coins (Environmental (Estimated CO2 Impact of emissions)

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production and

transportation)

^{3] Example} (3) Food-loss Coins, a currency to solve food problems.

- Currency to handle the informational value of the "sustainable act" of purchasing food just before its expiration date.
 - O With the aim of reducing food loss at supermarkets and convenience stores. By purchasing food items such as boxed lunches that are close to their expiration date Food loss coins are credit-created
 - \bigcirc The closer the expiration date, the more coins are created.

Food-loss coins are used to obtain new food items.

- \bigcirc Use the obtained coin to have new pre-expired food.
 -) →Allows people to earn new food when they perform actions that contribute to the reduction of food loss.
- O No conventional legal tender transfer is required here.
 - O there is no need to give or receive fiat currency.

^{3] Example} (4) Exchange of sustainability-related currencies Realization of a society in which "if you want to eat, study more" through the exchange of informational currency.

Knowledge coin

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Food-loss coin

^{3] Example} (5) Educational coins to improve living standards

- eg.) a next-generation education system "Tomabechi Academy"
 - An educational system using "education coins" that focuses on the social value of receiving an education in developing countries.
 - Tuition fees are paid with Education Coins.
 - Scholars can take classes with educational coins paid by the sponsoring companies.

Students can obtain new educational coins after each face-to-face or online



^{3] Example} (5) Educational coins to improve living standards

- eg.) a next-generation education system "Tomabechi Academy"
 - Education coins can be used for further study
 - Paying tuition for the next year, purchasing books, taking more advanced courses, etc.
 - Education coins can also be used to improve other aspects of your life
 - To receive medicines and medical care at hospitals, food, etc.
 - This coins are transferable to family members.
 - For example, if you learn more, you can send your grandfather to the hospital.
 - Students who have completed the course can obtain a Japanese highschool diploma (to be adjusted).
 - Students with excellent grades will be supported to study abroad at the world's top universities.

Currency that deals only with informational value

Anxiety of

"value-preservation" widening the wealth gap between rich and poor.

→ Instead of "a society in which individual interests are prioritized" with the conventional currency, the half-life currency will realize "a society in which everyone's interests are prioritized"

Anxiety of

"productivity in the information space" widening the gap between rich and poor

→ Separation of "physical value" from "informational value is important.
 An "informational currency" deals with only informational value.

Realize a society that focuses on knowledge, art, sports, sustainable practices, etc.