

Universal basic income as a smart contract

The most consensual program embedded in CBDCs

R-coin.net by Ryoji Furui

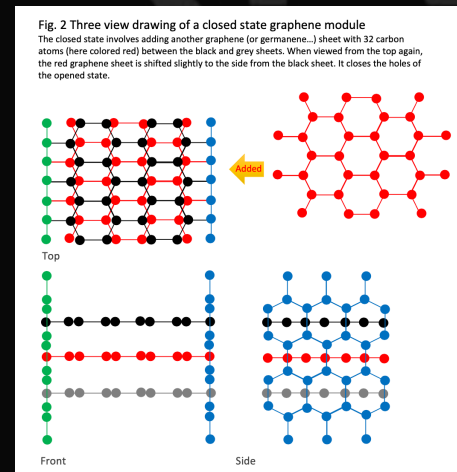
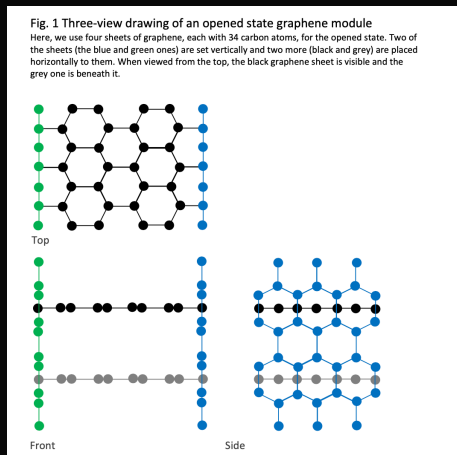
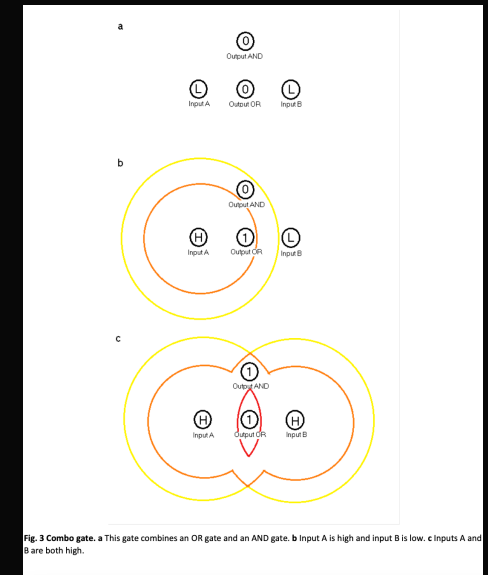
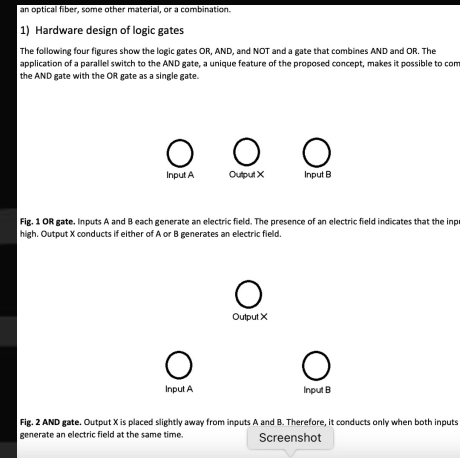
About R-coin.net

- R-coin.net is a hybrid hardware and software development project for implementing a single global currency.
- R-coin is a core part of software development. It aims to realize real, gold-backed, universal basic income (UBI) as embedded global currency issued by central bank union (CBU). Software development is still conceptual, not yet technical.
- R stands for Redistribution, Revaluation, and Revolution.
- Preferably, R-coin will be renamed by the world community once the upcoming global payment system is established through a voting function.

Hardware development

- Designing logical architectures

- Designing bit modules for next-gen computing



Documents are available at <https://github.com/r-coin>

What does the 'R' in R-coin stand for?

1. Redistribution

Redistribution is a key concept and extension of R-coin. UBI is a common term for an income unconditionally paid to every member of a society (1) on an individual basis, (2) without means testing, and (3) without a work requirement.* Typically, UBI is financed by tax income.

The future global currency would amass such resources by collecting transfer fees on blockchain. Globally, millions of money transfers occur per hour or day. Global currency transfer fees could be used to collect and distribute income among everyone, worldwide.

We could use biometric authentication to facilitate redistribution in the blockchain network, even for individuals without bank accounts, smartphones, or Internet access.

*Van Parijs, P. (2013). The universal basic income: Why utopian thinking matters, and how sociologists can contribute to it. *Politics & Society*, 41(2), 171-182.

What does the 'R' in R-coin stand for?

2. Revaluation

Commonly used currencies such as the dollar, euro, and yen are categorized as fiat currencies, that is, money issued by a government as legal tender. These are backed only by government trust, which is engendered through legitimacy (international recognition). A review of the history of these currencies shows that they were backed by gold after World War II, until 1971. It was possible to exchange 35 USD for an ounce of gold during that period. Gold had long been used as a stable means of valuation. However, trust in money has changed.

We propose a single global currency as global legal tender that is generated using Internet infrastructure as a blockchain for everyday use. We believe it is time to reassess our confidence in gold, digitizing the use of blockchain. Therefore, we set the unit of the future global currency to be proportional to the weight of gold. This could reaffirm our trust in the relationship between the physical world and the evolving virtual network represented by the Internet.

What does the 'R' in R-coin stand for?

3. Revolution

Bitcoin was the first, decentralized blockchain model designed by Satoshi Nakamoto, who remains anonymous. Later various challenges have been mounted to the development of Bitcoin over the past decade. Diverse opinions about Bitcoin fractured the market into various types of digital coins. Bitcoin has been used for illegal transactions, and its volatility has caused people to reevaluate its future and to consider it a speculative rather than an actual currency. We can determine the cost of maintaining legal tender to stabilize the economy, society, and our lives, compared with decentralized cryptocurrencies.

The R-coin project will begin as a private, nonprofit organization that would aim to create a global currency system. However, its goal is to preserve its authority by evolving into a public entity, as a global CBU.

How much should UBI be?

- An annual UBI amount could be set to **10 R-coins/year** (1 R-coin = 1 gram of gold) for the world's population above 15 years old, estimated at around 50 million people (UN, 2019) to surpass the Global Poverty Line (= 1.9 USD, per the World Bank, 2015). Total amount of UBI budget is

$$10 \text{ R-coins} * 50 \text{ million} = 50,000 \text{ tons of gold}$$

- The UBI amount can be increased but would impact local economies by inflation and the global debt market.
- Additional domestic UBIs can be distributed by domestic transfer fees.

How should UBI be funded?

- CBU is an organization formed by global central banks to manage a global central bank digital currency (CBDC) payment system; they will issue 50,000 tons of gold asset debt once and repay it by collecting transfer fees.
- Later, UBI is funded only by transfer fees expected to be less than 1% initially.
- Transfer fees can be collected only from wholesale or retail payments, or both; they can be added to the amount of the transfer or deducted from the total transfer value. CBU can determine flexible models to maximize the public interest.
- The UBI currency can be restricted to use within wholesale transactions by domestic rules, then converted to local CBDCs.

How should the global CBDC payment system be shaped?

- The CBU UBI payment system can provide its own CBDC service as well as interoperability to other CBDC systems (e.g. FedNow*) that would maintain universal protocols determined by CBU.
- The CBU payment system can provide required operations, including verification of identification of all individuals having UBI accounts, domestic government registration, voting systems, and social service network account certification, among others.

*FedNow: <https://www.frbservices.org/financial-services/fednow>

What are CBU operations?

- Establish all UBI parameters
 - UBI would be expected to increase the correction of disparities.
- Price stability
 - Need to oversee each nation or more local contexts.
 - Temporal increase may be needed to support skyrocketing inflation.
- Labor market stability
 - Need to oversee each nation or more local contexts.
 - UBI bonus can be added to job seekers when searching the job market.
- Security protection and monitoring of illicit activities
 - Expected to be well structured and developed by cooperation with and independence from central banks on distributed ledger.

Thank you for your kind attention!

- Further information is available at


R-coin.net