
Currency Innovation in the Context of Voluntary Work

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Abstract

This paper aims to open up several discourses around the creation of new forms of money and reward systems with the example of a regional currency design. After a dystopian fictional introduction the regional currency Social Coin is explained. The first question is, if and how social currencies can have a positive impact on society. The second question is to which degree such a social currency design can be applied for a local food sharing organisation. While both are examples of voluntary work, they differ strongly at the application of exchange logic (Social Coin) and exchange free logic (food sharing). Thirdly, relevant to social currencies is their technical implementation. The Social Coin is implemented on a private third party central server structure, which contrasts new technologies like Blockchain and Holochain, thus bringing up the third question around distributed or central ledger technology. All authors are somehow involved in some of the presented projects. Workshop participants are happily invited to enter the nourishing discussion that vividly arises whenever the authors meet each other.

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Introduction

This paper is meant as a discourse provocation to three main questions. The three discourses will be explained by the three last parts of this paper. Before this paper opens up the questions around currency innovation and the Social Coin, a dystopian (or utopian?) fiction shall be opened. We want to picture a world, where every social interaction is rewarded. Some literature suggests, that this might diminish the intrinsic motivation for social behaviour. How would a world look like, if humans would only be nice, if they are rewarded for being nice? Let's dive in.

A fiction

»Why was everybody so unfriendly to me?« thought Louisa and pushed her way through the begging children in her house's entry. In the elevator to her apartment on the 13th floor she opened her private email account on her augmented reality glasses. Her old school friend Derrick wrote a message titled »Follow up after our coin consulting talk« .

»Hi Louisa, it was great meeting you. I forgot something very important. You have to install the SociallyCoined24 app.« While the mail was read into her left ear by Derrick's voice she already initiated the installation on her augmented human system. »As I said I assume that Deutsche Coins will acquire them in the near future and integrate the coins into the Deutsche Wallet, but now this is the way it works. If you don't install it, other customers of SociallyCoined24 won't be able to receive coins from social interactions with you. There was a lot of critique that this leads to socially inadequate behaviour, so I suggest you just install it.

By the way, my fridge calculated a consumption of 42 food-sharing-coins that I am happy to waive. But you should consider joining foodsharing, it makes everything so easy and you get a free personalized training plan if you use my

bonus code DerrickShure86. See you later, Derrick

PS: I would kindly remind you that you owe me 11 friendly-coins, 20 consulting-coins, and 7 hospitality-coins.« She hated that Derrick included the imbalances between their accounts in the signature of his mails.

After installation Louisa had to approve the claim of Derrick and checked her Wallet. She had 989 friendly-coins, 7 visit-coins and a negative balance on consulting-coins and hospitality-coins. A warning message popped up. »Not enough hospitality-coins for planned appointment 'Date with Raphael.« Louisa groaned. »I knew it was a mistake. This coinification leads to nothing.« She scanned Raphael's Profile on OkCupid. It showed a 95% match in sexuality, 89% match in music taste and she liked the pictures of his flat. The date was arranged at eight pm, which was in one and a half hours.

How could she earn some hospitality coins? She thought about the children that live in her house's entry, but remembered, that her augmented reality glasses showed no sign of any coin account when she passed them. She clenched her teeth. »Ok Google, call my mum.«

Contextualization

In our current society, money is the primary tool for steering economic activities and processes. Money works in local currencies on a global scale in a somewhat decentralized manner. But when the value of anything and any action is represented in money, it becomes the overall measurement for value. At the same time the system becomes blind for and externalizes anything without monetary value. However, there are many desired activities and behaviors for which it is reasonably unwanted to monetize them. Examples are parents caring for their children, friendship activities,

politeness and possibly voluntary work, in general activities related to values of caring, respect or human dignity. How could these values be supported systematically analogous to the way efficiency is supported by money? We try to approach this problem by applying digital technology to account for behavior that the community regards as caring, respectively to support caring practices. Technical tools can be designed and utilized to complement capitalism with a system that is sensible to the social non-monetary values society holds. After all, for the operating system of society to incentivize desired behavior it is a prerequisite that the behavior is visible to the system. However, not only is the vision ambitious, but the design of tools that account for this information is more than tricky. According to the design choices for these tools, they can be seen as very money-like, nothing like money, or anything in between. On the money-like end of the spectrum are quantitative, fungible tokens or coins. Therefore, we investigate the following research questions: Can communities effectively utilize such coin schemes to incentivize the behavioral patterns they desire? Or are these tools in conflict with the very reasons why money is regarded as inappropriate for these areas, and they would corrupt voluntary labor?

Together we want to discuss what it means to tap into the potential of Social Currencies, while staying alert to the hazards of experimenting with tools to steer society. Thereby we touch upon conflicts, involving:

- The Overjustification Effect: The intrinsic motivation to do good becomes corrupted by the extrinsic reward in the form of coins. This casts out voluntary work as worthy for its own sake.
- The Power Struggle: Whoever is able to set the rules for rewarded behavior, holds a tool to manipulate the

society. Especially if these rules are up to unilateral change instead of some consensus of the participants, they can become a subversive tool of persuasion.

- Corrupting Values: When benevolence is rewarded by coins that are money-like and with money interchangeable, "being poor" conflates with "being a bad person". Further social marginalization of the poor and increasing economic inequality can be expected.

The Social Coin an example from Siegen

The development of the last centuries saw a huge rise in commodification. Before that, people received most of their consumption out of their community and money was only needed for special commodities. Culminating in the last century with the commodification of especially in care labor, childcare, Care for the old, etc. have been in the domain of family, community or church in earlier ages. In the last decades we actually see a swing back, with »Ehrenamt« (volunteer work) substituting formerly paid work. The Social Coin will push back the pendulum a little more into the direction of commodification again. The Social Coin rewards volunteering work with coins that can be redeemed for e-mobility sharing. While this concept is widely accepted on a local level, it bears some implications that can be seen critically. Several questions around the context of commodification are raised. Does it crowd out intrinsic motivation for social tasks[4, 3]? Or does it close a gap of wage payment that was opened due to sinking social spending? Is this the first step into a world where every human interaction is not only surveilled but compensated? Or is it a logical step in honoring care work? Can this be considered a mechanism that provides more dimensions of motivation and therefore ensures continuity and sustainability? A possible implication could be, that grassroots-movements get a chance to sustain themselves. The pro bono characteristic

of non-profit work is often a hindrance to sustain long time commitment of contributors. Thus, only grassroots-movements that make the leap into a stable funded organization survive and are able to keep their contributors by making them employees. With a social currency like the Social Coin, local communities get a chance to honor and support local grassroots movements. The Foodsharing movement offspring in Siegen will be one of the projects awarded with the Social Coin. Thus the group gets access to free mobility which will help their task to rescue food and distribute it. Because access to a car is a huge benefit for picking up larger amounts of food, this might help the cause a lot. But will this be enough, or does it need more resources or other expressions of appreciation and honoring?

One of the authors is highly involved in the design and implementation of the Siegen experiment of the Social Coin. With this paper we want to invite critical thinking. We want to assess the project from a broader perspective and thus we open up the space to discuss the implications of a social currency system from multi-disciplinary viewpoints.

Distributed Ledger Technology

Linking to the narrative of a new means that complement money as tools for the global coordination system of society, there are many advances in the direction of the Commons and establishing an economy that measures the public good instead of merely GDP (In Germany this is called "Gemeinwohlökonomie"). But our predominant reliance on money as a measure of value is exemplified by the fact that in the globalized world of today, there is almost no chance to see the real and far reaching effects of people's purchasing decisions respectively purchasing practices, except for the measure of efforts of production collapsed into a price tag. (Recently certificates about the circumstances of production (organic/fair-trade etc) are flourishing, but

it is a hassle to understand what exactly they mean and one has to rely on the judgement of potentially biased third parties. In the future a consumer would be able to explore the non-monetary values weaved together along the supply chain of the product he is about to purchase. In a "Gemeinwohlökonomie" companies would be required to publish their records of non-monetary values on immutable ledgers.) These representations of non-monetary value could range from the money-like forms of coins to any form of qualitative feedback. In any case an envisioned future system that is on scale sensible to non-monetary values requires some software infrastructure to be based upon.

Oh that behalf relevant are lower level traits like tamper proofness as well as the top level network topology. Systems theory argues that only decentralized and diverse systems can be resilient, while any system that factors towards centralization and efficiency becomes increasingly fragile. But not only due to resilience even more due to power, decentralization is advisable - If a central entity has control over a tool, which is steering the incentives among society, it can be easily abused as a manipulative instrument. Therefore the choice of the digital infrastructure becomes increasingly important with increasing scale (although the word choice is simplifying the puzzling collective process by which society adopts technology). In the field of Distributed Ledger Technology (DLT) there are Blockchain alternatives which promise to be suitable to the design choices of any value signals.

Practices of Sharing Food

One of most common things that people encounter throughout their daily life is that they have to eat and drink. While eating is an egoistic necessity, limited to the individual, food practices still spark a habituation of being united [5]. Yet, recent research on Human Food Interaction (HFI) rather focuses on functionality (66%) and individual experience (22%), then on social

bonding (12%) [2], like family meals, urban gardening or communal cooking. Next to social inquiries, food encompasses economical and environmental issues like food waste and supply shortages while the global food system is responsible for 21-37% of total net anthropogenic GreenHouse Gas emissions[1].

Researching food practices in the context of Sustainable HCI offers a wide context to investigate socio-technical innovations. For our research design we focus on the German grassroots-movement of Foodsharing that is utilizing the platform Foodsharing.de to coordinate and organize food saving and food sharing practices[6]. Foodsharing is an interesting case, because it has started as a 'money-free' organization that for many years was thriving to not spend any money on anybody's labor or resources. And to this point just a hand-full of people are employed, while over 2.500 pick-ups of food are being made every day. Yet its participants were engaging into the community and supporting it with their resources, for example with their personal car to pick up leftover food at a supermarket and whoever has picked-up the food can decide what to do with it (eating it oneself, distributing it privately or in publicly accessible places). For our particular study we engage as action researchers in a local community of Foodsharing. Here we look into the context of a 'Fair-Teiler' (Fair-Shair-Point), a publically accessible place where there is a fridge and shelf in which people can put or take food. During Covid-19 the food banks in the local city closed and therefore Foodsharing took over their pick-ups and delivered the saved food to a place in which a local association offers social services, especially supporting food sharing. This very charitable association, that is collaborating with Foodsharing for about two months, is about to launch the Social Coin. Therefore, we are investigating the socio-technical context and the connection to Foodsharing, and especially the practices of

saving and sharing food. Furthermore we look at the needs and interest of the participating people to derive design implications that support the local food sharing practices through a innovative currency as the Social Coin. Issues that we want to address in this context in order to support food sharing practices are:

- Practitioners lack resources, especially access to mobility to pick up food and share it.
- Coordinators do not know, when people bring food to the 'Fair-Teiler'.
- Through the platform Foodsharing.de people can share pictures and text of what is in the Fair-Teiler. Yet it is not appropriated by most people involved.
- Some practices, like cleaning the 'Fair-Teiler' are not very popular around volunteers. We aim to support appreciation of this practices and bring a value to them through a innovative currency
- Researching the conflict of a 'money-free' organisation and innovative currencies.

Final Words

The future of money is a research area that serves as a meeting point for researchers from multiple disciplines. In the future a new vocabulary might develop, when concepts and methods might approach and merge. But before a fertile discurs seems to be unavoidable. In this position paper we illustrated some discourses we as activist researchers from different disciplines happen to constantly argue about. We hope that the reader feels the call to enrich our argument with a new perspective, a totally different or complementary argumentation or a valid or biased critique on some of our

possibly unnoted assumptions. To wrap up, here are the main conflicts:

- What are the positive and negative effects of social currencies?
- How does the design of a currency affect power structures?
- Are social currencies just another form of equivalence exchange in contrast to exchange free logic or do they operate in a third dimension?
- Is distributed ledger technology a more democratic or more resilient infrastructure for future currencies or is the central server structure sufficient when we adopt laws and norms?

We are more than excited to be inspired by contributions.

Researchers Bios

Marvin Landwehr is a PhD student working interdisciplinarily in the fields of Pluralist Economics and Socio Informatics. With his background in mathematics he is interested in the protocols of Distributed Ledger Technology, their application for new forms of money and the possible impact on society. In particular he works on possible implementations of a Blockchain Alternative called Holochain for money experiments in community supported agriculture.

Valentin Seehausen is currently working on the implementation of the Social Coin, a Local Currency that rewards neighbourhood help with coins redeemable for electric vehicle sharing. He studied »oldschool« Economics and Pluralist Economics. Currently he conducts an impact evaluation of the Social Coins possible crowding-out effect on voluntary work.

Philip Engelbutzeder is a PhD student and a research assistant in the field consumer informatics. Therein he is researching food practices, focusing on the practices of saving and sharing food. He is an activist researcher, who has spent years with open-source grassroots movements to develop (digital) support for food saving and sharing communities.

Sarah Rüller ist a PhD student and research associate at the department of Socio-Informatics at the University of Siegen, Germany. Her research interests include social and community innovation as well as ethnography in Human Computer Interaction, especially with regard to technology appropriation by communities in rural regions, primarily in Morocco and Palestine.

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