PRE THESIS PROJECT SEMESTER 7, **2020**

THE FUTURE OF MONEY: REIMAGINING SUSTAINABLE DEVELOPMENT

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Institute of Art, Design and Technology

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The Future of Money :

REIMAGINING SUSTAINABLE DEVELOPMENT

Money changes societies and societies change money. We do not yet fully understand the consequences of a society without money. When money was “born,” (the first banknote was printed in France in the 17th Century) the population of our planet was around 2 million. Today, there are over seven billion of us. The system is under pressure because a massive demand for financing has created a historical level of economic debt in the world, which in turn causes an increase in inequality. It is compromised by issues such as inflation, the illicit economy and counterfeiting, to name a few. This has also increased inequalities.

Our perception of money – how it is earned and its value – is undergoing a major change. The physicality of it will change and we may have to be prepared for a financial revolution in the next 10 to 15 years. Recently, currencies have started to disappear; more than 600 in the last 30 years, and the trend continues. Israel is known for being a trend-setting nation as far as innovation is concerned. In Israel, there are now no less than 87 passable alternatives “currencies” in direct competition with the country’s official currency, the Israeli shekel, that you can use to buy real estate, books, clothes, food, and so on. Many thinkers and researchers argue that this trend will lead to the disintegration of our traditional perception of money.

Working with ICE (http://ice.humanfactors.com/), our aim was to explore the context through the lens of critical design and develop an overall problem statement and considerations in developing a landscape of possible roles that design can play in facilitating change, keeping in mind the now and the future.

Context

We began our research by understanding the role money played in society. It's evolution, and how the base motive for earning money greatly shapes individuals and everyone around them. To further understand the outlook we should take while approaching our own theory for the "he future of money" we looked into critical theory, and the theorists that helped shape the practice as we know it today

Three theorists who significantly contributed to the formation of Critical Theory are Pierre Boudieu, Jurgen Habermas and Micheal Foucault.

Bordieu : A French Sociologist, Anthropologist and Philosopher.
Habitus : Bourdieu describes habitus as an individual's set of acquired patterns of thought, behaviour, and taste. The unconscious internalization of objective social structures appears spontaneous and natural, but which are in fact socially conditioned.
Capitals : In the field, an individual is not defined by social class membership, but by the amounts of each kind of capital he or she possesses.

1. Economic capital simply refers to economic resources, such as cash and property.
2. Social capital : A property of the individual, based on their collective, derived primarily from one's social position and status. Social capital enables a person to exert power on the group or individual who mobilise the resources.
3. Cultural capital : collection of symbolic elements such as skills, tastes, posture, clothing, mannerisms, material belongings, credentials, etc. that one acquires through being part of a particular social class.
4. Symbolic capital : is earned on an individual basis and may fluctuate widely between members in a community, An actor may possess a great degree of symbolic capital while isolating themselves from the community, resulting in a low level of social capital, or vice versa. Symbolic capital is usually associated with power through knowledge.

According to Bourdieu all these forms of capital can be used to produce or reproduce inequality.

Michel Foucault: A french sociologist, his theories he primarily addressed the relationship between power and knowledge. He rejected the relationship societal institutions had with power and knowledge and how they were used as tools for social control.

The capitals within Foucault's lineage are- Genealogy of knowledge, archeology of knowledge, panopticon

Jurgen Habermas: A German philosopher and sociologist, he visualised the world using two-level social theory. This includes an analysis of communicative rationality (the rational potential built into everyday speech); and a theory of modern society and modernization.

In his theory, he discusses cognitive interests, communicative action, and lifeworld and systems.

Cognitive Interests : Orientations or strategies that guide how people aquire and use knowledge to pursue interests

Technical interest : Concerned with facilitating human technical control over natural as well as social objects

Practical interest : Practical communication with others

Empancipatory interest : Overcoming the distortions and imperfections of ordinary communication

Communicative Action : participants are oriented towards mutual understanding, emancipation is achieved

Strategic Action : actions are oriented to success (individual success)- cooperate or compete based on private goals

Lifeworld : the taken for granted world as experienced by people and constitutes of culture, society and personality
Systems: are definable, tangible orgs that follow lifeworld concerns

Lifeworld colonization : Occurs if instrumental rationality or organisational and institutional systems gets out of hand

Initial Research

What is Money ?
The fundamental definition of money is something that can be accepted by people in exchange for goods, resources or services. Virtually anything can be considered money, as long as it performs three major functions of storage of value, medium of exchange and unit of account.

Money in itself has no intrinsic value. Its value is purely symbolic and is based on the importance people have assigned it.

Money in it's current state can be classified into four broad categories :

1. Commodity Money- The value is defined by intrinsic value of the commodity. Eg- Gold

2. Fiat Money- The intrinsic value of the money is lower than the face value. Eg- Bank Notes

3. Fiduciary Money- This money has to be exchanged for fiat or commodity money. Eg- cheques

4. Commercial Bank Money- This is money generated through debt.

Over time, money has transformed from a tangible commodity having intrinsic value like gold, to an intangible and abstract form like cryptocurrency. Money has now come to be a symbol of power and authority, creating a conspicuous economic and symbolic divide between different classes of the society.

The earliest form of accountable currency system was the Barter system which was based on the exchange of goods and services. The barter system was bound by distance and had no standard rate of exchange.

Commodity money was an upgrade from the traditional barter system since it involved the usage of goods that were commonly used by everyone. However, it still didn't combat issues related to storage, transport and durability. People who had the capacity to own higher quantities of commodities possessed a higher economic and therefore symbolic capital. They held a higher status than the rest and this divide reproduced itself over generations. The barter system and commodity money were thus systems that produced and reproduced inequality.

Around 770 BC, the concept of coins and paper money was developed. These helped standardize the rate of exchange and solved the practicality issues related to commodity money. Coins and currency notes were termed as representative money which were backed by the banks' claim to exchange it for silver or gold. Fiat money replaced representative money. The value of money was determined by Government fiat or decree, ushering in the era of enforceable legal tender, which meant that the refusal of "legal tender" money in favour of some other form of payment was illegal by law. In the current day scenario, this led to an unequal distribution of power between the state and its citizens, since a single Government body is responsible for the regulation of all monetary policies. Fluctuations in the Government body lead to fluctuations in the value of the currency.

The proliferation of digital payment instruments and the development of electronic networks and interfaces for the circulation of monetary value have enabled a rapid shift from physical to digital payment methods. Infrastructure and tools for safe, reliable mobile purchasing have been advancing rapidly in recent years. These digital payment platforms are convenient to use via mobile phones and are location aware, however, not everyone has access to smartphones, and the susceptibility of NFC to hackers, market fragmentation and interoperability are some of the downfalls of the system that still remain unaddressed. This has led to the emergence of a 'payments divide' between those with access to these technologies and those without, eventually leading to the reproduction of social inequality.

Critique of existing monetary systems

Centralized monetary systems enforce a strong Government agenda to move financial systems towards a system that is easily monitored and benefits those in power.

Some important questions that arise here are - Does the critique of these systems open up possibilities for creating currencies independent of governments? How does generational preference affect changes in values and monetary practices? Can we redesign the act of "paying money" in a way that accommodates this change ? How can money facilitate the rebuilding of communities and bridging of the social and economic divide?

Alternate forms of currencies

1. Local currencies
Local currencies refer to place-based monetary tools for building sustainable local economies.
Pros: Local currencies serve as mediums of exchange in

a geographically defined market and usually promote awareness of local producers and merchants and increase social cohesion. The goal of local currencies is to effectively make local goods less expensive

2.Complementary Currencies

A complementary currency is a currency or medium of exchange that is not necessarily a national currency, but that is thought of as supplementing or complementing national currencies. They usually function by assigning value to community-based goods and services. Complementary and Community currencies enable the growth of not just economic, but cultural and social capital as well.

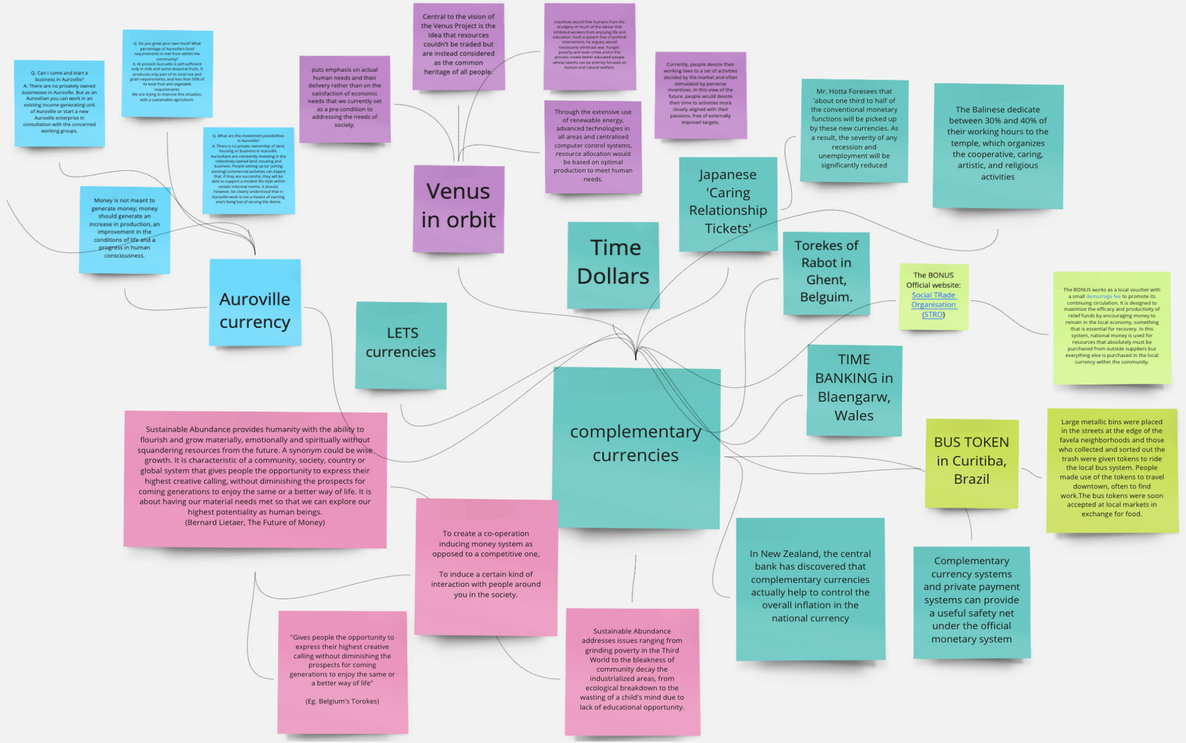
Eg: Fureai Kippu (Japan) : A time-based co-operative currency whose goal is to promote care and service to the elderly. These “tickets” are paid to individuals who choose to help the elderly with areas that the Japanese national healthcare system doesn’t cover. The caregivers in turn may use these credits when they are ill to get assistance from other caregivers or they may elect to transfer their Fureai Kippu credits to parents or relatives who need help.

Bus token in Curitiba, Brazil: To combat their trash issue, large metallic bins were placed in the streets at the edge of the neighborhoods and those who collected and sorted the trash were given tokens to ride the local bus system.The bus tokens were soon accepted at local markets in exchange for food.

Torekes in Ghent, Belgium: Rabot is an immigrant district in Ghent, Belgium that suffered from high unemployment and urban decay. Surveys found that locals wanted to have access to a few square yards of land for gardening and the city happened to own abandoned land in the neighborhood. These plots were rented at the cost of 150 “Torekes”, a local currency created for that project. Participants were rewarded for beautification and conservation activities. Arrangements were also made with local shops to accept Torekes for specific green goods that the city wanted to promote: Torekes can also be exchanged for public transport tickets and seats for cultural events.

3.The Venus Project

The Venus Project is a non-profit organization that presents a new socio-economic model utilizing science and technology toward social betterment to achieve a sustainable civilization of abundance. Central to the vision of the Venus Project is the idea that resources couldn’t be traded but are instead considered as the common heritage of all people. Currently, people devote their working lives to a set of activities decided by the market and often stimulated by perverse incentives. In this view of the future, people would devote their time to activities more closely aligned with their passions, free of externally imposed targets.machines would free humans from the drudgery of much of the labour that inhibited workers from enjoying life and education. Such a system free of political intervention, he argues, would necessarily eliminate war, hunger, poverty and even crime and in the process create better educated people whose talents can be entirely focused on human and natural welfare. Through the extensive use of renewable energy, advanced technologies in all areas and centralised computer control systems, resource allocation would be based on optimal production to meet human needs.



Exploring Sociologists

BREAKDOWN OF SOCIAL THEORIES

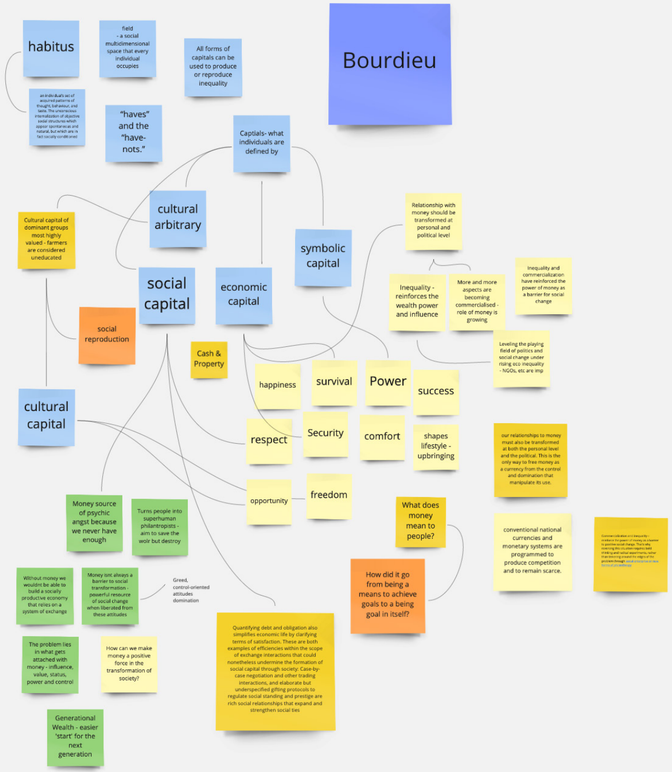
Bourdieu

According to Bourdieu, habitus is largely unquestioned and presumed to be an innate quality. However in reality, it is shaped by the influences of societal conditioning. Models of education and capitalism thrive on this unquestioning state and are designed to further naturalise it, through cycles of social reproduction.

Q- Are people aware of the cycles of social reproduction? Do they ever question the social structures that influence their values and decisions? How might we create a system where individuals are free to reflect on the working of social structures?

A - Schools and monetary systems reinforce the status quo through manipulation of the values of the four capitals. In the current model, economic capital (mainstream currency) holds the highest value with a combination of symbolic power. In other words those who are wealthy and have an advantage as a result of their heritage and background stand at a position of advantage over others. Cultural capital, or education, is recognised as the skills and knowledge taught in conventional schools, when technically it should encompass all types of skills and knowledge that a person holds. Cultural capital is an essential factor in determining the nature of work and lifestyle an individual would have access to, assuming they don't already possess some amount of symbolic or economic capital.

Q- Are economically disadvantaged communities really lacking in cultural capital? Or does it seem that way because the dominant social groups don't value their knowledge and skills? Is it fair to only have a "one size fits all" model for money and education?



Foucault

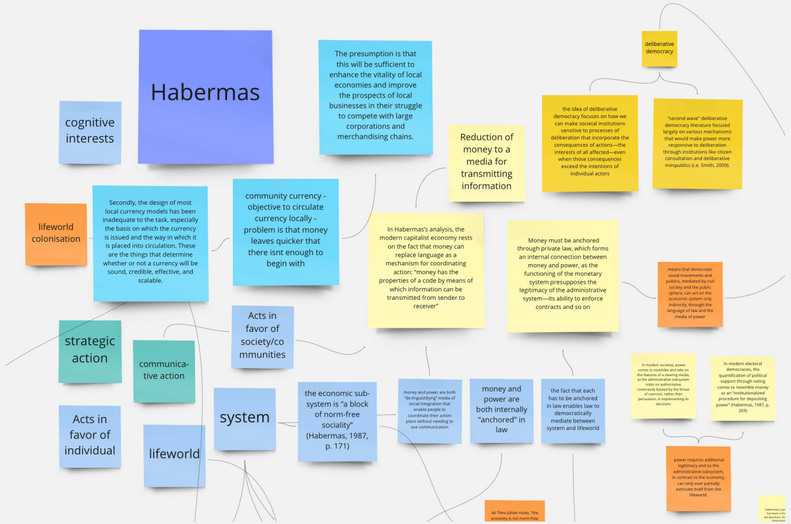
Foucault's concept of archeology of knowledge aided in exploring how the nature of money evolved over the years. When exchange happened in the form of barter, money was simply a medium of exchange and measure of value. In order to satisfy the other characteristics of money (store of value, divisibility, means of deferred payment and ensuring a double coincidence of wants) money evolved to what it is today. However, in several communities people would still revert back to a barter system, e.g. in a time of crisis.

Q- In trying to satisfy all the functional requirements of money, what negative repercussions were overlooked? Barter is an example of a decentralised monetary system, since only the parties involved in the exchange have a say on how the exchange would be conducted. With the increase in centralised control, and the creation of laws, power and surveillance began influencing exchange in a big way through a panopticon model. "Contemporary society is penetrated through and through with various disciplinary mechanisms which regulate the behavior of individuals, and these operate largely through self-surveillance." (Taken from post it)

Q- How does externally imposed self-surveillance drive behaviour, as opposed to internal values? Would people behave "ethically" if they didn't feel accountable to some higher authority? How might we use the concept of panopticon in a positive light? What if communities worked with transparency and were only answerable to themselves and one another, instead of a central government?

3. Habermas

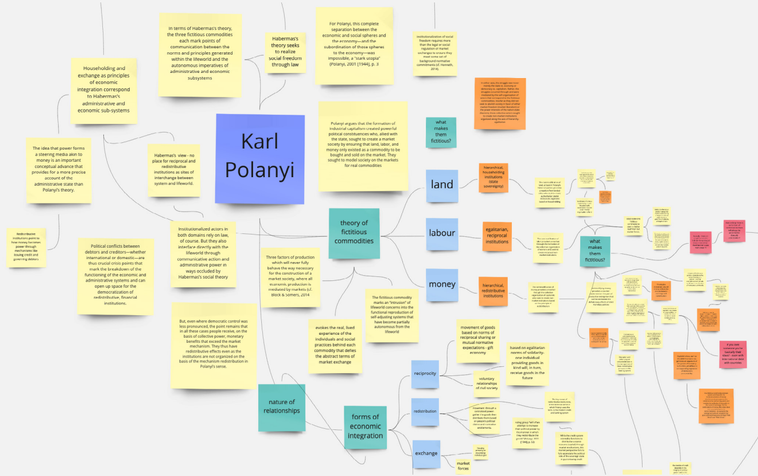
The dynamics of the system and lifeworld as described by Habermas does not adequately explain the complexity of their relationship. According to Habermas the system and lifeworld are completely separate and operate on completely separate plains. The system operates on strategic action, while the lifeworld operates on communicative action, and the only mode of interaction between the two is via the legal system. Money, according to him, is simply media which enables people to act according to their individual gains while simultaneously supporting the lifeworlds' material requirements. Lifeworld colonisation occurs when the "instrumental rationality of the system" diminishes and the lifeworld and begins to get compromised. Karl Polanyi points out that this two layer view is far too simplified and does not do justice to the real world scenario. The reality is that the system is not so objective, since it is run by people who carry their subjective agendas with them and often let those agendas drive their decisions.



4. Karl Polyani

In the Theory of Fictitious commodities Polanyi describes money as being more than just a commodity, since it carries connotations of power and hierarchy. Through a series of arguments describing the subjectivity involved in every aspect of the system, Polanyi concludes that the system cannot be separated from the lifeworld.

Q- Shouldn't the system operate largely on communicative action if it's meant to support the lifeworld? How has the strategic action driven system impacted lifeworld behaviour? Could capitalism and strategic action be a reason for economic capital holding higher value over social capital? What if the system and lifeworld were merged and communities made all decisions based on communicative action? Would people only work for the benefit of the community if they saw how they would in turn gain from it? If so, is strategic action an inherent, unavoidable aspect of living?



5. Karl Marx and George Homans

According to Marx, money and currency are separate. Money is something that has dual value- exchange value and intrinsic value, whereas currency is simply a symbol that has only holds value because people believe so. In the labour theory of value, money derives value from human labour that goes into it. Therefore money is essential objectified labour.

The power dynamics present in the monetary system can be explained using the Social Conflict Theory and Social exchange Theory. Social conflict theory sheds light on the illusion of freedom created by the "ruling class"- Consumption from the proletariat becomes a function of th-e level of wages and commodity availability (compare to Emerson's power- dependence theory). Thus, at first glance workers are metaphorically "free to choose" as monetarist Milton Friedman (1979) adage goes. In practice, the lack of control over salaries and what, where, and where commodities are produced, are empirical constraints on the workers' quality and quantity of consumption, thereby their standard of living. (post it)

Validating this idea, Social Exchange Theory describes the working of the system using Blau's Institutionalised Systems of Exchange and Emerson's Power Dependence Theory. Blau's visualisation illustrates the working of institutions of authority and power, and emphasizes their motives to maintain the status quo. Emerson's theory highlights the crippling effect of dependence on a centralised system as a result of the power it admisters in central authorities. The fundamental factor in creating this power-dependence dynamic is access to resources, which has been monopolised through centralisation. Ironically even those to live in areas where forest resources are abundant have been banned from using them under government regulations.

Q- How might we reduce the dependence on the central authorities through reforms in monetary systems? How might we create monetary systems that enable communities to utilise the natural resources and cultural capital inherent to their community to grow and develop?

Insights from Initial Research

By conducting secondary research, identification of many topics around money and the monetary system. With this research, narrowing down the scope of the research was done by looking at the information through the lens of the critical theory concepts. By doing so, it became clear as to which critical theory concepts that would need to be used.

Questions that arose while critiquing the research- How did money go from being a means to achieve goals to a being goal in itself? How can we make money a positive force in the transformation of society? What can a society where the regulation of money happens based on self- surveillance look like?

While looking into the different forms of currency systems that exist today, it was identified that the systems were either decentralised systems or centralised systems. From the research it was concluded that currency systems should not be on either extremes of decentral or central systems but should be a mix of both. To further understand either extremes, examples of both central and decentral currency systems were chosen. Cryptocurrency being an example of decentralised systems and Auroville currency system as an example of centralised systems were chosen.

Research into Auroville

Founded in 1968 by Mirra Alfassa (also known as The Mother), Auroville is meant to be a universal town where men and women of all countries are able to live in peace and progressive harmony, above all creeds, all politics and all nationalities.

The Auroville Charter

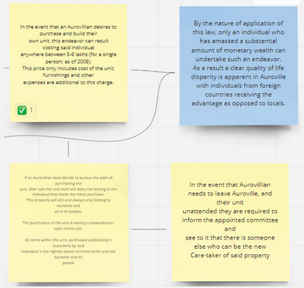
Its founder, the Mother, created the Auroville Charter consisting of four main ideas which underpinned her vision for Auroville. When Auroville came into being, All India Radio (AIR) broadcast the Charter, live, in 16 languages. Aurovilians apply the ideas of the Auroville Charter in their daily life, in policy-development, and decisions, big and small. The Charter thus forms an omnipresent referent that silently guides the people who choose to live and work for Auroville.

Auroville Charter key points

- Auroville belongs to nobody in particular. Auroville belongs to humanity as a whole. But, to live in Auroville, one must be a willing servitor of the Divine Consciousness.
- Auroville will be the place of an unending education, of
- constant progress, and a youth that never ages.
- Auroville wants to be the bridge between the past and the future. Taking advantage of all discoveries from without and from within, Auroville will boldly spring towards future realisations.
- Auroville will be a site of material and spiritual researches for a living embodiment of an actual human unity.

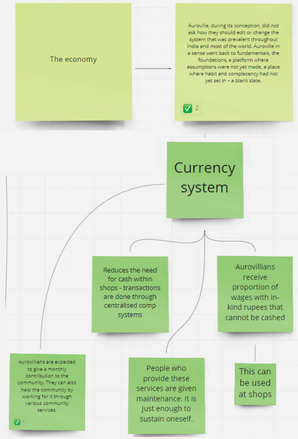
How to become an official citizen of auroville?

STEP 1- You must first be a guest at Auroville for 3 months, during this time you will be required to complete 80 hours of community service at any Aurovillian unit.
A unit is a semi autonomous body under one of the Auroville Trusts which is run by two or more Aurovillian executives and can engage in commercial or service activities. Some units host a range of small scale activities and are called “umbrella units”.
STEP 2- You must also receive 3 recommendations from other Aurovillians.
STEP 3- Once the above steps are completed you can apply and submit a Basic Application to become a “New Commer”.
New Commer- refers to the residency status given to applicants who will hold this status for 1 year after which their application will be reviewed again. Newcomers are required to pay Auroville a monthly amount as their contribution to maintaining the infrastructures and services that Auroville provides it’s residents Rs.100/ Daily (as of 2008)
STEP 4- The admission of will be based upon a bureaucratic process,Aurovillians will be notified of your applications pending approval status in the News and Notes of the community forum where if any pre-existing member objects they can then raise their concern and proceed with a discussion with the appointed board about their grievance.
STEP 5 - once step 4 is accomplished you will be given the status of a “New Commer” for 1 year, during this time you are require to work 40 hours a week for the community. After this 1 year process your status will once again be published in the News and Notes and be allowed to face the public judgement as in step 4, if no objections are raised you must produce a recommendation from 6 other Aurovillians. And if all steps are adequately accomplished you then will receive the official title of an Aurovillian.



Unequal distribution of access to resources within Auroville

The amount distributed to Aurovillians has been documented to be an inadequate amount to fulfill basic needs. Which contradicts the core goal of a “Universal Basic Income” system.



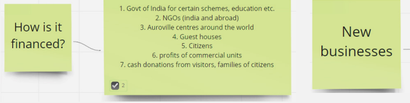
Housing In Auroville

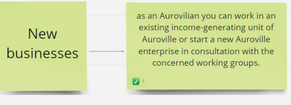
The housing opportunities within Auroville, despite their core beliefs due to a lack of accountability to predisposed discrimination among all people the quality of life is greatly unbalanced favouring individuals that posses large sums of monetary wealth prior to their admission as an Aurovillian. The inequality has also affected several core systems of Auroville.

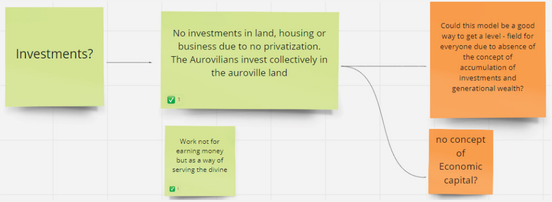
Auroville and its Economy

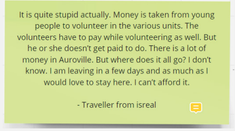
- Auroville within its border allows 2 types of currencies to be valid.
- The Aurovillian currency can be accessed through a Aurocard, a digital, paper free form of currency linked to online services allowing users to not only conduct transactions but also avail several banking services by using the Aurocard.
- Auroville also discourages tourists and other locals in conducting transactions with standardised national currency due to accessibility limitations created by an exclusively local complementary currency.
- These difficulties paired with Auroville’s heavy reliance on tourism to supplement the income of locals adds to stagnant use of it’s local currency.

3. Other aspects of Auroville’s economy

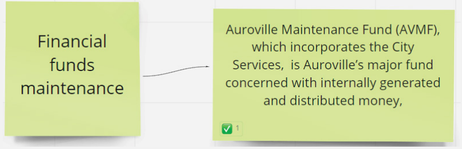


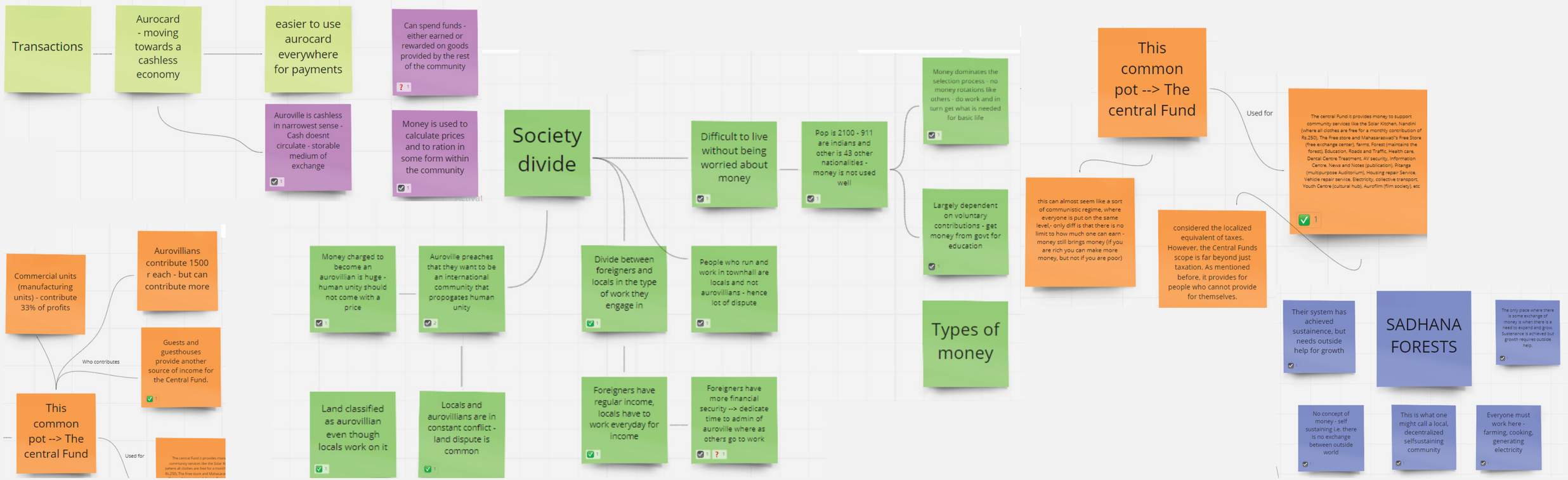






4. Marx

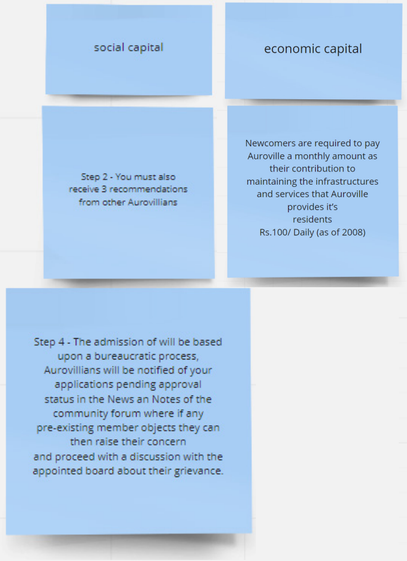



Transactions
Aurocard - moving towards a cashless economy
easier to use aurocard everywhere for payments
Can spend funds - either earned or rewarded on goods provided by the rest of the community
Auroville is cashless in narrowest sense - Cash doesnt circulate - storable medium of exchange
Money is used to calculate prices and to ration in some form within the community
Society divide
Difficult to live without being worried about money
Pop is 2100 - 911 are indians and other is 43 other nationalities - money is not used well
Money dominates the selection process - no money rotations like others - do work and in turn get what is needed for basic life
Largely dependent on voluntary contributions - get money from govt for education
Types of money
this can almost seem like a sort of communistic regime, where everyone is put on the same level,- only diff is that there is no limit to how much one can earn - money still brings money (if you are rich you can make more money, but not if you are poor)
This common pot --> The central Fund
Used for
The central Fund it provides money to support community services like the Solar Kitchen, Nandini (where all clothes are free for a monthly contribution of Rs.250), The Free store and Mahasaraswati's Free Store (free exchange center), farms, Forest (maintains the forest), Education, Roads and Traffic, Health care, Dental Centre Treatment, AV security, Information Centre, News and Notes (publication), Pitanga (multipurpose Auditorium), Housing repair Service, Vehicle repair service, Electricity, collective transport, Youth Centre (cultural hub), Aurofilm (film society), etc
considered the localized equivalent of taxes. However, the Central Funds scope is far beyond just taxation. As mentioned before, it provides for people who cannot provide for themselves.
Money charged to become an aurovillian is huge - human unity should not come with a price
Auroville preaches that they want to be an international community that propogates human unity
Divide between foreigners and locals in the type of work they engage in
People who run and work in townhall are locals and not aurovillians - hence lot of dispute
Land classified as aurovillian even though locals work on it
Locals and aurovillians are in constant conflict - land dispute is common
Foreigners have regular income, locals have to work everyday for income
Foreigners have more financial security --> dedicate time to admin of auroville where as others go to work
Commercial units (manufacturing units) - contribute 33% of profits
Aurovillians contribute 1500 r each - but can contribute more
Who contributes
Guests and guesthouses provide another source of income for the Central Fund.
This common pot --> The central Fund
Used for
Their system has achieved sustainence, but needs outside help for growth
SADHANA FORESTS
The only place where there is some exchange of money is when there is a need to expand and grow. Sustenance is achieved but growth requires outside help.
No concept of money - self sustaining i.e. there is no exchange between outside world
This is what one might call a local, decentralized selfsustaining community
Everyone must work here - farming, cooking, generating electricity

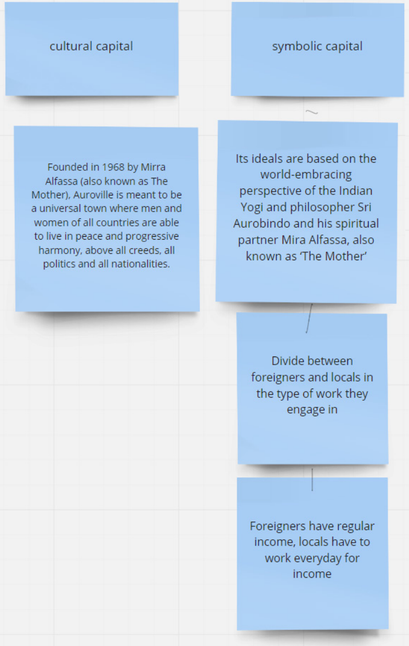
AUROVILLE VIEWED THROUGH CRITICAL THEORY LENSES

Bourdieu's Lineage

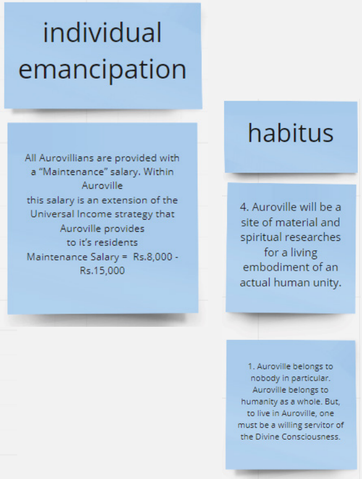
a. Social Capital & Economic Capital



b. Cultural Capital & Symbolic Capital

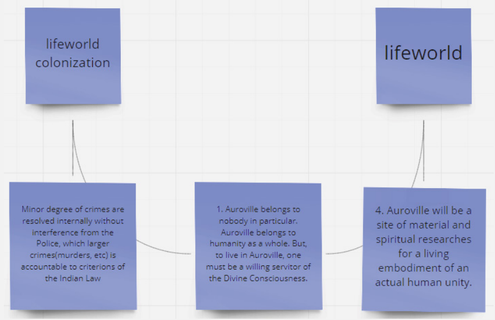


c. Individual emancipation & Habitus

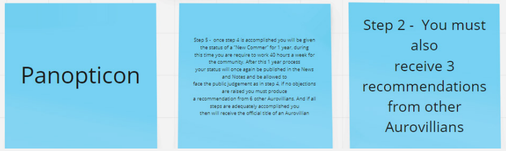


Habermas's Lineage

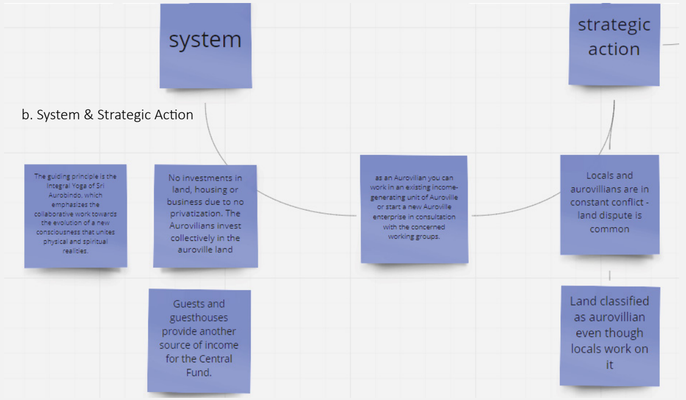
a. Lifeworld colonization & Lifeworld



Foucault's Lineage



b. System & Strategic Action

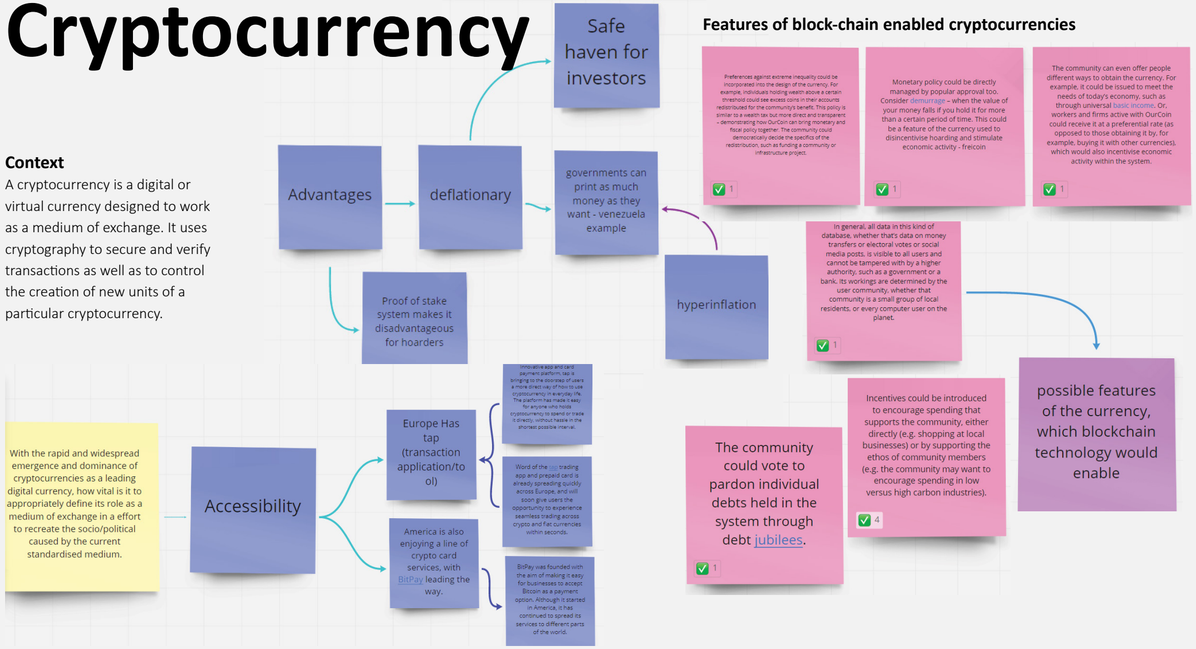


c. Communicative Action

Research into Cryptocurrency

Context

A cryptocurrency is a digital or virtual currency designed to work as a medium of exchange. It uses cryptography to secure and verify transactions as well as to control the creation of new units of a particular cryptocurrency.



Critical Analyses of Cryptocurrency problem-solving

Different Cryptocurrencies

a. Coinshare

CoinShare is the first company to launch a Social Shopping Platform on the model of the Sharing Economy

CoinShare allows users to receive a Cashback in Tokens for each purchase made on the platform and also for the purchases made by its community. In fact, the platform rewards the most active users, thanks to an algorithm that detects the monthly activity of each member within the community. In other words, this project allows you to earn more than you spend.

b. Reddcoin

Reddcoin is the first Social Cryptocurrency. It's the original social network tipping, content creator, and micro-donation cryptocurrency. Its Core Wallet allows you to store, send, and stake your balance. Grow your stash on a regular basis!

e. Siacoin

Bitcoin (BTC) is most useful in terms of payments and value storage

At present, it has over 60% of the market dominance. The fact that Bitcoin is so prevalent allows it to be the cryptocurrency most widely accepted for real-life payments. Many establishments around the world accept Bitcoin, and there are even Bitcoin ATMs that allow people to withdraw cash.

f. IOTA

IOTA (IOTA). IOTA Differs from other cryptocurrencies because it offers completely free transactions. It is the first cryptocurrency without a blockchain and uses Tangle technology instead. Tangle is a new protocol that brings several unique qualities to IOTA: infinite scalability, zero commissions, fast and secure transactions.

c. Bitcoin

Ethereum intends to be a single point of contact for the creation of smart contracts and decentralized apps that have no single point of failure and are completely anonymous. Vitalik Buterin, creator of Ethereum has expressed that Ethereum is not to be only used as money, unlike Bitcoin.

Ethereum (ETH) on the other hand is especially useful for Smart Contracts & Decentralized Apps (Dapps).

d. Ethereum

Siacoin (SIACOIN) on the other hand is known as the airbnb of hard drives because they are known most for their decentralized cloud storage

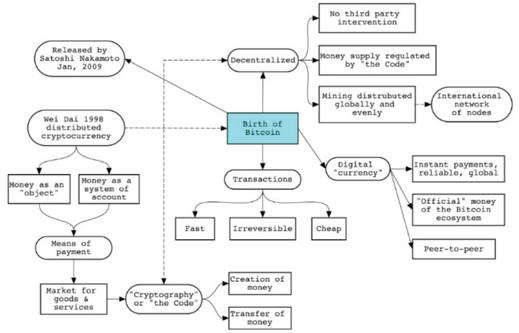
Siacoin allows users to rent out their unused hard drive space in exchange for money all user data is stored on blockchain so this eliminates the potential of centralized storage devices failing, and prevents the misuse of unencrypted data. Storage with Siacoin is more bang for your buck when compared Google Drive, Dropbox, Amazon and Cloud storage

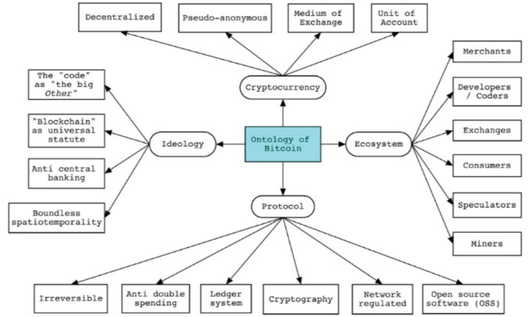
g. Ripple

Ripple - good for cross border transactions

CRYPTOCURRENCIES : BITCOIN (BTC)

A comprehensive breakdown of systems, functions and features of Bitcoin and the role it plays parallel to existing conventional systems.





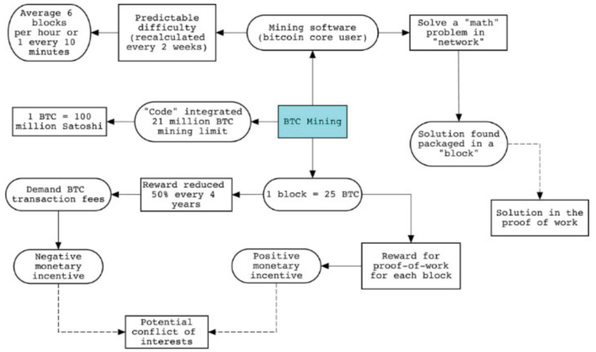
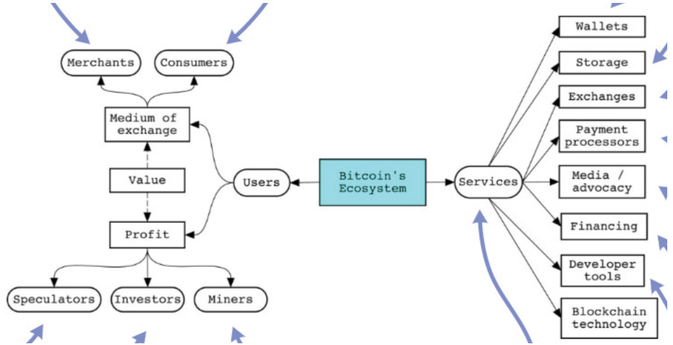


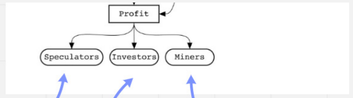
Table 1: Ontological Qualities Comparison of Money Types

	BTC	US dollars	Gold	Treasury Bills	Bank checks	Ox
Fungible	1	1	1	1	0	1
Durable	1	-	1	0	0	-
Portable	1	1	-	1	1	0
Divisible	1	1	1	0	0	0
Tangible	0	1	1	1	1	1
Recognizable	0	1	0	1	1	1
Scarce	1	0	1	0	0	-
Liquid	-	1	0	1	1	0
Aggregates	5	6	5	5	4	3

Scores: 1 = yes (positive), 0 = no (negative), - = relative (neutral).

It is only the liquidity (i.e., ubiquity of exchange) quality then, where fiat money has an advantage over bitcoin, understandable fact because the cryptocurrency has only been circulating since 2009. Within several years, ceteris paribus, bitcoin not only can match the liquidity levels of paper based money, but even surpass it.





Speculators use bitcoin to make a quick profit from price fluctuations and volatility17 in the currency, whether the price moves up or down

Investors, on the other hand, have the same intention of making a profit from price fluctuations on bitcoin's price, but on the long run

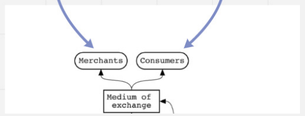
Miners are rewarded with new "mined" bitcoins every time they solve the cryptographic algorithm, this solution packaged in a "block"

Other type of investors (e.g., venture capitalists) put their money in bitcoin but via proxy. Instead of buying the cryptocurrency directly, they invest in business projects run by professionals and specialists that support and promote (up to a point) the expansion of the bitcoin

The "code" is conditioned to reduce the number of bitcoins rewarded to miners in half, approximately every four years. Some years from now, mining bitcoins will be a no-profit zone, situation that will raise the taboo question of transaction fees to execute the proof-of-work every time bitcoins are exchanged.

Merchants may use bitcoin to increase sales, expand market share, minimize transaction fees and returns, stay ahead of the competition technologically, and facilitate the commodity exchange cycle

consumers - medium of exchange on the other side of the commodity exchange spectrum. Paying with bitcoin is fast, reliable, convenient, and as anonymous as paying with legal tender cash



Bitcoin

Attempt to establish an autonomous decentralised digial curency and payment system --> online peer to pee

Key analytical issues are no longer about value and representation but security and encryption

Algorithmic tool to foster trust in the absence of social capital, physical colocation or third party management

whereby money passes through three stages—from gold (or metallic or material money) to paper (a representation of money) to the era of immaterial digital and credit money. Bitcoin is an emergent dematerialised digital currency.

Development of financialization, technology changes has not improved financial affairs for majority

Facilitated capitalist trends toward monopolistic power consolidated, intensified, and legitimized neoliberalism, and resulted in periods of boom and bust, arguably leading most recently to the sub-prime mortgage financial crash of 2008.

Bitcoin was response and solution to crash of 2008 - socialist solution to capitalist problem

Nakamoto suggests - root problem of conventional currency is the trust required - central bank must be trusted but history of fiat currency - full of breached of that trust

Trust in govt and banking low in 2008 - shift trust from banks to security and encryption

discourse

Trust and belief in bitcoin as remedy to problems with traditional finance - discourse around bitcoin

there is interesting potential to be explored in bitcoin and a challenge to established financial power. On the other hand, this might all be merely "mycelial technological utopianism" (Golumbia, 2016, p.42) or a deliberate attempt to talk up a venture capital investment.Swartz13

Bitcoin could be the vehicle that transforms the financial system from centralised to decentralised" (Kelly, 2016, p.59) Kelly proclaims that, "[a] decentralised system is superior to the centralised system when preventing a failure at the hub is essential.

Bitcoin's social and cultural imaginary is one in which governments and banks cannot ever be trusted, where digital technology is always empowering, and where decentralized individual anonymity is preferred to collective recognition of social identity.

Any form of regulation, law, centralisation, organisation, and collectivity, is rendered politically problematic and invisible to this imaginary

Further innovations may be oriented towards that idea of how technology is to function in the social and cultural imaginary. Such terms "institute" a way of being: as Bourdieu puts it, they "sanction and sanctify a particular state of things, an established order, in exactly the same way that a constitution does in the legal and political sense of the term"

Based on the model of bitcoin technology, it may be "possible to create distributed collaborative organizations or "open co-operativism" " (Garrod, 2016, p. 73). This could be used to help smaller, regional areas protect their own commons—whether they be in the form of healthcare, education, water, air, internet, knowledge, and so on.

extraordinary example of how thousands of people, with a different cultural background, economic status, language, education, and location form a successful virtual community to achieve a collective goal

Though Bitcoin is based on a peer-to-peer (P2P) exchange model, it is the "code" and not the parties involved in the trade who validates the transaction itself

solution to these challenges lies on the basic function of Bitcoin's protocol, the development of an "electronic payment system based on cryptographic proof instead of trust."

high transaction costs for small amounts of money

concerns with third party dependence on electronic financial transactions

reversibility of payments

unchallengeable trust on an intermediary for transaction executions

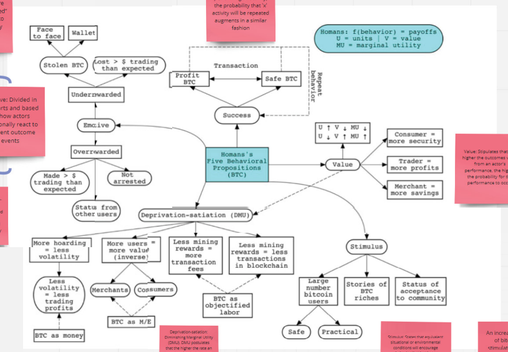
people who are 'under-rewarded' are assumed to become angry and behave violently

Success: Asserts that as reward increases for performing 'x' activity, the probability that 'x' activity will be repeated augments in a similar fashion

Romans: f(behavior) = payoffs
U = units | V = value
MU = marginal utility

Emotive: Divided in two parts and based on how actors emotionally react to different outcome events

people who are 'over-rewarded' or are valued from anticipated punishments are assumed to be joyful and behave agressivly



Value: Discloses that the higher the perceived value from an actor's performance, the higher the probability for the performance to occur

Stimulus: States that equivalent situational or environmental conditions will encourage actors to behave in ways previously awarded in such conditions, therefore enabling (induced) behaviour reactions to have sensible circumstances.

An increasing number of bitcoin users stimulates more of (in use, creating a network effect), thus expanding rapidly in an exponential way

Fuchs defines Critical Internet Theory/Studies and the Critique of the Political Economy of the Internet as an approach that engages in "identifying and analysing antagonisms in the relationship of the Internet and society; it shows how the Internet is shaped and shapes the colliding forces of competition and cooperation; it is oriented towards showing how domination and exploitation are structured and structuring the Internet and on how class formation and potential class struggles are technologically mediated; it identifies Internet-supported, not yet realized potentials of societal development and radically questions structures that restrain human and societal potentials for cooperation, self-determination, participation, happiness and self-management" (Fuchs, 2009, p 75).

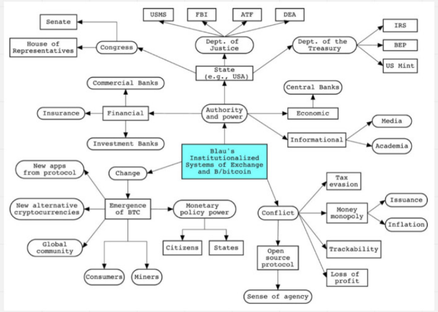
That is, an application and myopic understanding of the decentralized network without taking into account its historical formation and architecture, its politics (on both a local and global level), underlying ideologies, and problematic mode of production. Further, it is a view which accepts fully utopian notions of the entwining of technology and progress. It is argued that bitcoin is vulnerable to such an approach. As in the classic study of commodity fetishism, bitcoin pioneers promoted the decentralised network's appearance as an autonomous figure endowed with a life of its own. In this case, the network functioned as a mask that conceals economic, and other, exploitation.

critique and scope for reform

The financial arm - interest in maintaining the status quo by: controlling the issuance of credit money, mediating monetary transactions between parties, centralizing savings, physically restricting account assets access, and supervising every monetary transaction

Authority and power is represented in four main institutions: financial, the state, economic, and informational

The state arm - obliged to enforce laws against anything threatening the current modus operandi of credit issued money and income tax collection. Ironically, this socially antagonistic and enervating effort is used to pay for debts incurred by the federal government from private banks



The economic arm - control monetary policy, which is basically a proxy for whatever private banks and neoliberal corporate interests have in their agendas. Central banks, having monopoly power over the issuance of legal tender (fiat) money, are much interested in maintaining that supremacy

Any alternative currency, in the long run, can be a potential menace and will be neutralized or absorbed sooner or later

Informational arm - From the dominoism exercised on them, media and academia maintain the money system's legitimacy, mostly by manufacturing consent, funding which, maintaining and promulgating ideological conditioning (i.e., false consciousness) over the population(s), where the current debt based money system is the absolute and infallible choice for human prosperity and freedom(?)

The money monopoly of issuance from central and private banks, direct control of inflation via FOMC interest rates (in the case of the Fed) and indirect via private banks oversupply of consumer credit, is in diametrical opposition with Bitcoin's protocol of controlled issuance via mining processing, and the fact that no central authority has the power to issue debt based bitcoins, since the protocol was originally designed against any potential abuse of trust.

Bitcoin's pseudo-anonymity and spatiotemporal quality to transport and exchange anywhere in the world with (or without) an internet connection, makes the work of tracking down tax evasion criminals not only strenuous, but a priority before it becomes unmanageable

the global community of BTC coders, merchants, traders, miners, and consumers, with an aggregate purchasing power of over US $6.5 billion[26] and roughly 6.8 million owners[27], have the potential power, working in unison, to beget change in the current neoliberal economic and political global order

Large and small underdeveloped states could potentially regain monetary sovereignty if they decide to break away from global debt servitude[28] and adopt bitcoin (or some other decentralized cryptocurrency) as official currency

As the aggregate number of users and transactions increase, the monetary policy power (issuance and interest rates) will continue shifting from central and private for-profit banks to consumers

Another relevant aspect of the emergent power of bitcoin is the fostering of innovative blockchain technologies, cryptocurrencies, and open source apps, not only within the finance industry, but in health education, and business as well2.

The current profit mechanism from electronic money processing by financial firms is in direct conflict with Bitcoin's protocol, which reduces the transaction costs of exchanging money to a nominal fraction of current standard practices. By circumventing the middlemen, buyers and sellers can close a deal without the additional and unnecessary rental and skiming of banks as intermediaries. The situation has reached such a critical point that financial institutions themselves are sponsoring ethereum, a new decentralized and programmable cryptocurrency with its proprietary blockchain, to directly compete against bitcoin.

Tax evasion, a principal concern to the state in foreign affairs but not as eager locally, is a clear reason for conflict inasmuch as bitcoin can be used as a mechanism to evade taxes

Laws are of high importance to federal budgets. The US, for instance, has huge fiscalistic reasons, but because the $400 billion dollars a year interest payments the US federal government owes has to come from somewhere24 (FRED 2015). The little guy (i.e., the poor, the ignorant, the disadvantaged, the bastards) usually the first casualty of capitalism's financial misbehaving.

Emerson's "power-dependence" theory (1962)

Based on Emerson's theory, we can derive the following formulas:

I. $f(P) = D(x^y)$

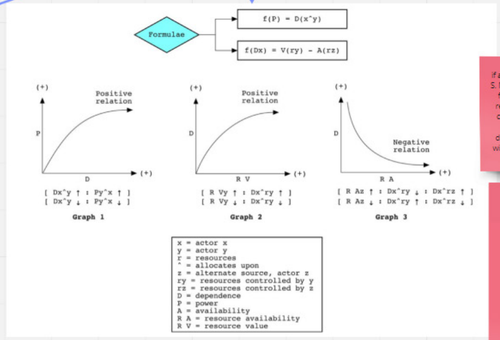
II. $f(Dx) = V(ry) - A(rz)$

Where:

P = power
y = actor 'y'
r = resources
A = availability
rz = controlled resources, actor 'z'
RA = resource availability
x = actor 'x'
D = dependence
ry = controlled resources, actor 'y'
z = alternate source, actor 'z'
^ = allocates upon
V = value
RV = resource value

From formula I, we can deduce that power is a function of the relational dependence of actor 'x' allocates upon actor 'y'

In formula II, dependence itself is a function of the value actor 'x' allocates upon the resources controlled by actor 'y', in addition to the availability of these same resources from an alternate source, or actor 'z'. Thus, the larger the availability of 'r' from actor 'z' (or additional actors), the smaller actor's 'x' dependence upon actor 'y'



x = actor x
y = actor y
r = resources
^ = allocates upon
z = alternate source, actor z
ry = resources controlled by y
rz = resources controlled by z
D = dependence
P = power
A = availability
R A = resource availability
R V = resource value

If an alternate source (e.g., S. Nakamoto) comes to the fore with an additional resource (BTC) currently controlled by the banks (fiat money), our dependence upon them will decline proportionally

In the case of bitcoin, as our dependence upon banks for the issuance of money and control of monetary policy in parallel, their control over us increases respectively

If we plot both RA and RV graphs overlapping with each other, an equilibrium point is reached: RA continues increasing while RV continues decreasing until achieving the point of optimization dependence. Therefore, we can agree with Cook (1987:176) in that "the structure of exchange relations among power subordinates may be critical to their success in mobilizing coalitions of weak against string". Theoretically, sustained bitcoin expansion (network effect) has the potential to neutralize the power of the international banking cartel over the world, attaining unprecedented structural change without a single bullet shot. The global spread of bitcoin has embedded in its code the seeds of a liquid revolution.

bitcoin as thesis

social conflict theory

bitcoin as antithesis

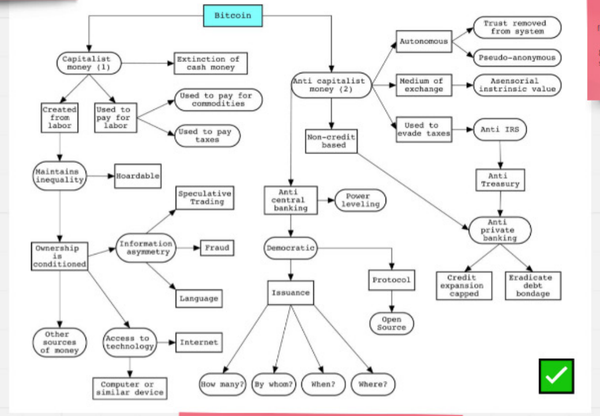
Bitcoin's digital form, whether intended or not, encourages a shift to a cash-less economy

ruling monetary authorities rejoice on the idea

With physical cash, money can be safely stored outside of the banking system, either as bank notes or as other form of value (e.g., gold coins or ingots)

In electronic form, this personal agency does not exist. The moment trust is broken between the individual and the monetary institution, possession or even ownership of the electronic money could potentially disappear into oblivion

Barriers to participation - need to own money to buy BTC, access to technology, Linguistically, a language hegemony (e.g., English, German, or Chinese) creates an invisible barrier between the bitcoin ecosystem and the rest of the world's population



bitcoin's issuance is not controlled by fractional reserve lending, thus dampening the fundamental requirement for capitalism to grow; i.e., perpetual credit expansion until the system implodes (e.g., the great depression of 1931 and great recession of 2008)

Central banking is managed in secret31; life changing deals and monetary policy issues are decided behind closed doors. The sovereign citizen has neither voice nor vote in matters concerning how much new money will be introduced into the economy32, by which agencies or institutions33, for how long, and at what interest rate

Capitalist market

Consumer

Capitalist

Their relationship is mediated, perpetuated, capitalized via

MONEY

A tool of control by ruling class

Monetary system is based on class contradictions

Qualitative lifestyle variances are decided and governed by quantitative variances in money affluences

Because workers are paid a wage, distinctions in a money based capitalist system "blurs the class character" (Nelson 1999) of the link between worker and capitalist, concealing its exploitative relationship based on monetary profit (i.e., surplus-value)2

money fashions the likelihood for "an absolute division of labor", that is, the sale of "labor-power" for money, hence money sold as capital22

Marx realized that money has the standardizing attribute to level (i.e., equalizer of human worth) and subsequently disguise class differences, while representing simultaneously the "supreme expression of class contradiction" in the way money is unevenly distributed across society

Consumption from the proletariat becomes a function of the level of wages and commodity availability (compare to Emerson's power- dependence theory). Thus, at first glance workers are metaphorically "free to choose" as monetarist Milton Friedman (1979) adage goes. In practice, the lack of control over salaries and what, where, and where commodities are produced, are empirical constraints on the workers' quality and quantity of consumption, thereby their standard of living

Unprotected payments are irreversible

Most crypto currencies so not restrict purchases - illegal items as well

Socio-economic perspectives

blockchain technologies could increase the worldwide trading volume, moving to better levels of service and lower transaction fees. (WEF)

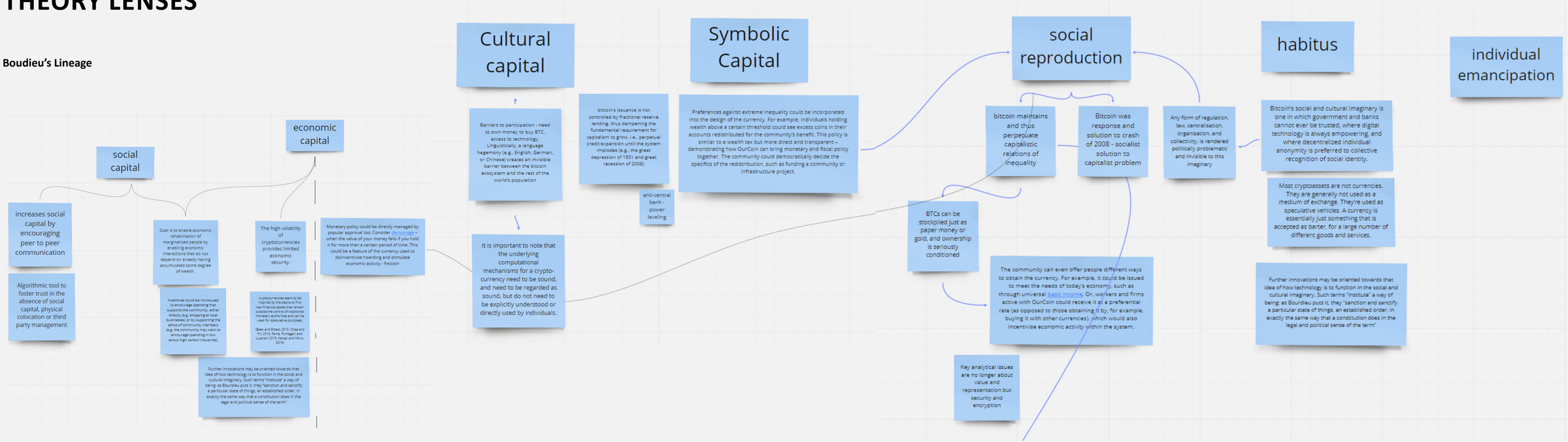
Beginning of bitcoin era - used mostly for drug purchases - 46% of bitcoin transactions

potential relationships between Bitcoin exchange activity among countries and national levels of economic freedom

The study shows that high levels of freedom to trade internationally, that guarantee low tariffs and facilitate international trade, are strongly connected to the Bitcoin diffusion. On the one hand, the freedom to trade internationally could increase the foreign trade through the use of alternative payment instruments capable of reducing transaction costs

BITCOIN VIEWED THROUGH CRITICAL THEORY LENSES

Boudieu's Lineage



Habermas's Lineage

lifeworld colonization

lifeworld

crypto-currency increases individual privacy and control, and eliminates the supervision of governments and banks through direct peer-to-peer transactions;

system

Key analytical issues are no longer about value and representation but security and encryption

strategic action

bitcoin maintains and thus perpetuate capitalistic relations of inequality

communicative action

Incentives could be introduced to encourage spending that supports the community, either directly (e.g. shopping at local businesses) or by supporting the ethos of community members (e.g. the community may want to encourage spending in low versus high carbon industries).

The community could vote to pardon individual debts held in the system through debt jubilees.

Based on the model of bitcoin technology, it may be "possible to create distributed collaborative organizations or 'open co-operativism'" (Garrod, 2016, p 73). This could be used to help smaller, regional areas protect their own commons—whether they be in the form of healthcare, education, water, air, Internet, knowledge, and so on.

Foucault's Lineage

Panopticon

In general, all data in this kind of database, whether that's data on money transfers or electoral votes or social media posts, is visible to all users and cannot be tampered with by a higher authority, such as a government or a bank. Its workings are determined by the user community, whether that community is a small group of local residents, or every computer user on the planet.

crypto-currency increases individual privacy and control, and eliminates the supervision of governments and banks through direct peer-to-peer transactions;

Marx

labour theory of value

currency vs money

Second, alas disqualified as money from its lack of materiality, it does qualify as medium of exchange in the nominalist school. Can we consider bitcoin as alienated objectified labor? Bitcoin is metaphorically mined into existence via the public blockchain, and from the protocol's instruction as means of payment to the network's working nodes. Each bitcoin under Marx's Labor Theory of Value indeed has exchange-value due to its emanation from human labor

bitcoin as cryptocurrency would not qualify as money. Bitcoin's value is derived exclusively from its emergent symbolic objectification as money, price is discovered by the laws of supply and demand. With neither physical nor legal representation, intrinsic value is a mathematical improbability

Bitcoin may not have intrinsic material utility since it only exists in the cloud, but still paradoxically qualifies for both use-value when sellers trade commodities for bitcoin, and exchange-value when buyers trade bitcoin for commodities.

Polyani

forms of eco integration

exchange

reciprocity

redistribution

householding

Preferences against extreme inequality could be incorporated into the design of the currency. For example, individuals holding wealth above a certain threshold could see excess coins in their accounts redistributed for the community's benefit. This policy is similar to a wealth tax but more direct and transparent, demonstrating how OurCoin can bring monetary and fiscal policy together. The community could democratically decide the specifics of the redistribution, such as funding a community or infrastructure project.

democratisation of both reciprocal institutions and redistributive institutions

Margrit Kennedy

bitcoin's issuance is not controlled by fractional reserve lending, thus dampening the fundamental requirement for capitalism to grow, i.e., perpetual credit expansion until the system implodes (e.g., the great depression of 1931 and great recession of 2008)

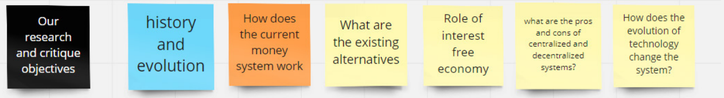
non credit based

limitied in supply - deflationary

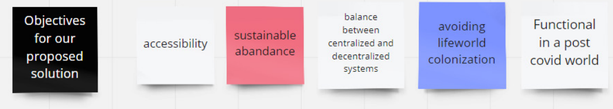
Interest + Inflation free economy

Potential Objectives

1. Potential objectives to critique our proposal by.



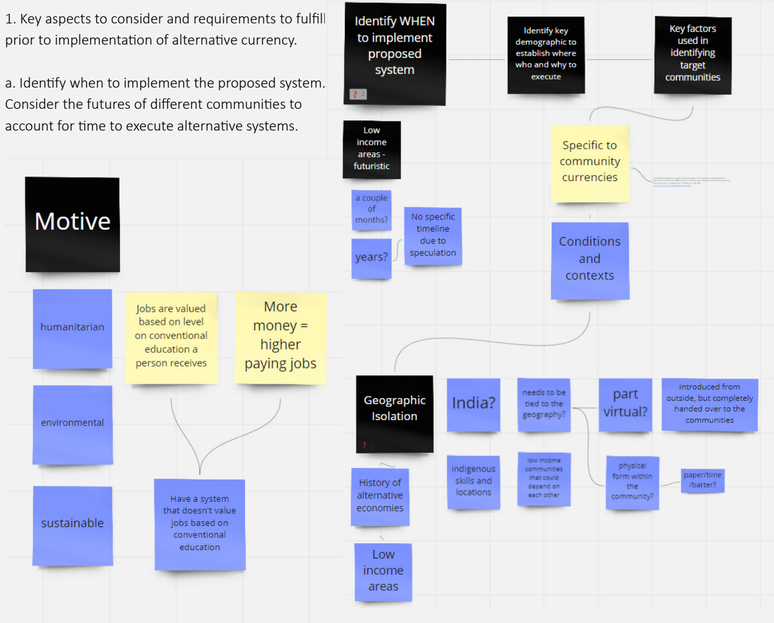
2. Potential objectives to fulfill with our proposal.



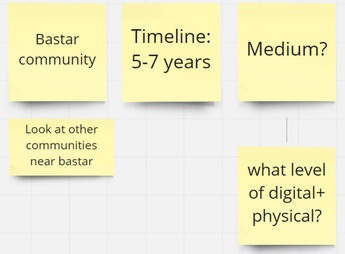
Identifying Scope

1. Key aspects to consider and requirements to fulfill prior to implementation of alternative currency.

a. Identify when to implement the proposed system. Consider the futures of different communities to account for time to execute alternative systems.



2. Rough “plan of action” for guiding factors

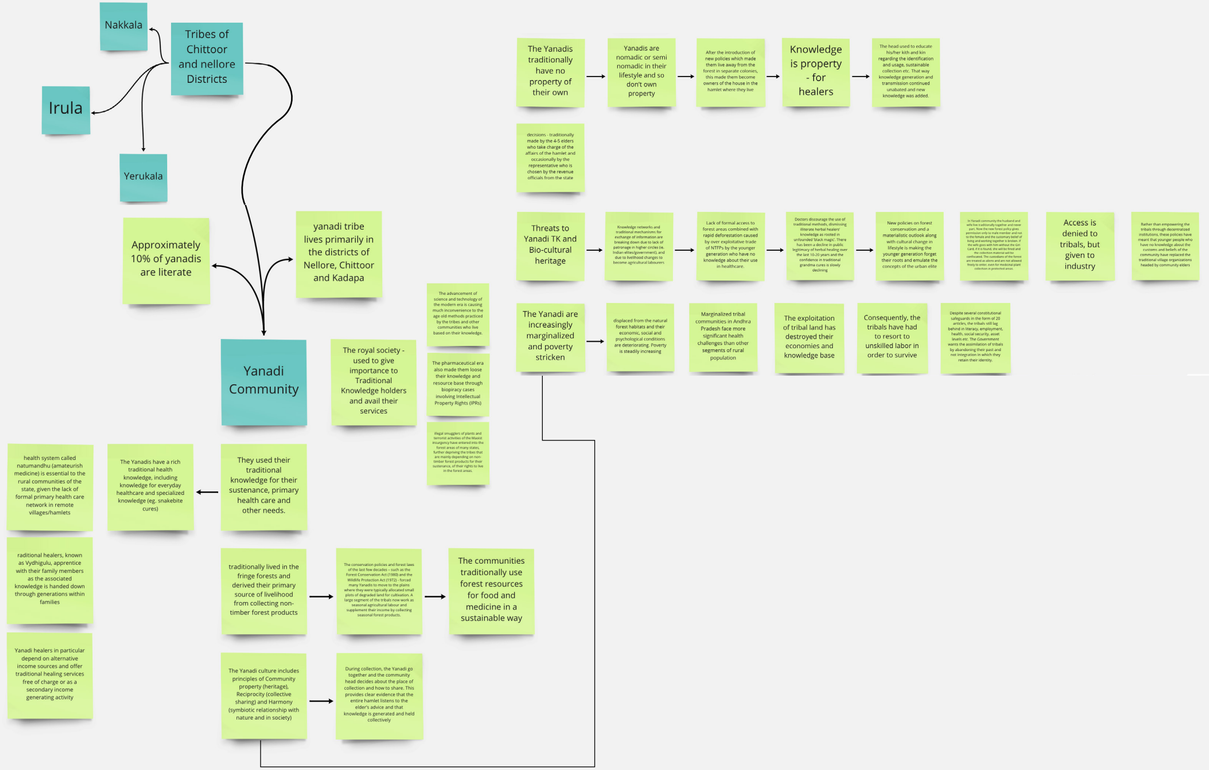


Community Research

Community Research Yannadi

Yanadi, one of the several tribes that reside in the Districts of Chittoor and Nellore, is a community that is rich in traditional knowledge. They function on principles of Community property (heritage), Reciprocity (collective sharing) and Harmony (symbiotic relationship with nature and in society). They are nomadic/semi-nomadic and do not own any property, however were forced to move away from the forests and become house owners as a result of new policies that were introduced. Natural medicinal treatments are one of their highest valued assets and to local healers, knowledge is property.

The advancements of science and technology and influence of the pharmaceutical era caused their downfall, as their knowledge grew less valuable. They were also victims of biopiracy and attacks due to the Maoist insurgency. Forest conservation policies restricted their access to natural resources that they used to sustain themselves, but granted access to the industry. They are now forced to work as labourers as they are considered uneducated, and live in situations of poverty and ill health. Q.- If a community relies on natural resources for food and medicine, would they not take care of the resources and ensure that they are preserved? Would they not have a better understanding of the ecosystems in existence and know better how to care for these resources than an external governing authority with capitalist motives?



Hastashilpa Interview

Vanshika Sanghi, and Sohayainder Kaur, students studying the craft communities across India were interviewed to gain a better understanding of communities that are not geographically limited, but connected solely through their craft. The main issues highlighted were the lack of access to resources; lack of value for traditional craft forms in the age of mass produced machine made products; and challenges arising due to artisans being forced to stay competitive in order to attract customers, while simultaneously earning a living to sustain themselves. What made this context stand apart from the others, was the fact that these artisans relied on interaction with other communities and urban consumers to sustain themselves, since their skill could not directly create food, medicine etc. Q- How would a community currency system connect people with limited access to technology, from across the country? How might we enable a complementary currency to create value for local crafts outside of the community?

Bastar Interview

Interview questionnaire:

1. What system of local governance is present?
2. What level of mainstream education do the community members reach on average (8th std., 10th, 12th, etc.)
3. What is the main source of income among families?
4. How self sufficient is the community? What resources are acquired from outside the community?
5. Do the members take part in any mainstream financial system?
6. How reliant are the community members on one another?
7. What goals are community members trying to fulfill from mainstream systems? Which needs do mainstream currencies fulfill?
8. Do geographically spaced communities interact/trade with each other?
9. How accessible are essential facilities to these communities (Healthcare, education, etc.)
10. Which facilities do communities require better access to?
11. What is the average income among families?
12. Can you tell us an overview of the community's history (Population size, migration, etc.)
13. Which discriminatory practices are present within the community? (Gender, caste, etc.)

INTERVIEW 1: Arsh Kumar

General Info about Bastar
Language spoken are certain dialects only spoken by then- Gondhi
They don't know how to write it- no specific font, recently got created
Very tribal dominated- more than 70%

Maoist problem- termed as the biggest internal problem in India
People who follow communist ideas- trying to fight the state to implement ideas
The protests are violent- tribals are killed
Most of the people who are maoist- not people who believe in ideology but are frustrated
They don't have good education
Have some schools but education is troubled
Rich has access to school
Education is localised
They have co learning spaces- ghotuls- they can function as a lot of different things
A lot of couples use this platform to see if they are compatible
There is also sex education- they are practicing such progressive forms- mistake ghouls as brothels

A lot of schools are broken down
Violent acts are towards hindrance towards development

3 areas of Bastar- red, yellow and green zones
Green- state controlled democratic and less violent
Yellow- Have Maoists locals also live there so not v violent
Red- Deep maoist controlled areas

Goldmine for natural resources
Ownership of forest is imp
Animism (Anything and everything has a spirit)- closely related to nature
Tourism- it has potential- it is hindered because people assume because of maoists
Language barriers is biggest problem- localised and education is limited
Tourism still happens- still it is (green and yellow) safe to grow
Encounters from maoist and officers

Other sources of income
Has a lot of agriculture
Weekly markets (Haats) people go to buy and sell stuff
People from outside can come- middle men come
Huge problem from the economy for Bastar
They use very diff forms of measurements- middle scam them

because of weird measurements (payely)
Have a lot of cultural cap- very different from the rest
People don't want a lot- don't understand the worth of the resources- want bare minimum- drive is culture and rights
How do they propagate information
A lot of info is passed down through generation
Lost a lot of traditional knowledge
No publication and documentation- cgnet is imp for that
Mostly giving messages- initial idea of cgnet- it becomes a document of the problems in Bastar
Biggest audience- officers, do this through IVR (no visuals completely audio)
Language barrier
When people send reports- Hindi, Gandhi reports are there
Recently created a digital script

Self sufficiency
Collectivist culture- good of the community, communicative action model
Tight knit groups- communities within themselves have no significant disparities, except from the richer adivasis who can afford to use their own resources and hence don't need CGnet
Forward thinking- still follow traditional gender roles
Women and children are very marginalised- men have the phones etc.
Work divide
Have low economy- very agro focused
3 mil people- check only for jobs

Regions are pretty separate/isolated- inside forests
Not easy to go
Some communities have markets
Most places have internet, some broadband services and some with none
There is internet but its bad- one without internet are very isolated- need to know what is happening outside
They know that the policies exist- ignored because of the maoist problems (Indian neglect + Maoist)

Community rep- people who can speak more than one language
Gram panchayats- comm rep- end up working close with cgnet
No one person in Bastar to figure out- community driven- all about communicative action

Migration
People travel- people do schooling outside
There has been a decay of traditional knowledge
Development is happening slowly- development will be slow (Maoist prob + lang barrier)
Maoist group has grown- locals join this- frustrated that no one understands- less ideology problem but more resources and basic rights issues
Maoist community have been around for a very long time-
Maoist communist party founded in 2004 movement existed before that- staging war against state- overthrow the govt
Cgnet is the only wall people between maoists and locals- cgnet can deliver the problems faced by people

Cgnet problems
Initially before IVR- have had different initiatives, different reports people put up
Make sure they have documented them- cgnet volunteers, talk to people and push them to do the work
Imp for people to be empowered to do this themselves- cgnet is struggling for funding
Engagement has decreased
Cgnet has limited staff- discouraged by problem not being solved
Incentive for using- cgnet success is causing failure- more people who don't get their problem solved

Money system
Might use barter system and stuff
Use normal currency- no special currency- (This could be an important area to tap into for the money group)
Assume because of eco status and resources- investments are far fetched
Have money lenders etc.
Far away from concept of having stable income

Rich adivasis
Some who speak not more than one language- not as rich
rich adivasis have other means of getting problem solved- people who are collectivists are those who are dependent on cgnet

Healthcare
Don't have any hospitals- maybe makeshift clinic
Medicines are based on traditional knowledge

Revised Interview Questionnaire:

1. What's the most suitable geographic location for a community currency system?
2. How far apart are communities from one another on average?
3. What is the typical persona of someone from the Bastar community i.e. what are their motivations, needs, frustrations and pain points?
4. What do they do in terms of healthcare? Are there any hospitals/clinics nearby that they visit?
5. Can you tell us a little bit about the education system in Bastar? How much of their education do most people in Bastar complete?
6. Is there a way we can incorporate dance and music within the schooling system in Bastar?

INTERVIEW 2: Shubranshu Choudhary

Shubranshu Choudhary is the founder of CGNet Swara that is an Indian voice-based online portal that allows people in the forests of Chhattisgarh to report local news in Gondi by making a phone call. An interview with Shubhranshu was conducted to answer questions and fill the gaps in information that arose from our initial research on Bastar.

Interview Notes

- maoist communities are very self sustaining
  housing is dependent on community labour
  agriculture is complimentary and dependent
- jamtana sarkar
- red healthcare- self dependent, gunia, jhaad phook
- red+yellow area- hospitals yellow area non functional
  green areas are functional.
- yellow areas- state is present but not fully,
- maoists but not fully present
- housing, marriage, events,
- yellow areas shop keepers don't live there they come in to haats which are areas where people socialize

  eg abuchmar(masoist hq 4000sqkm
  green zones money lenders
- jagtal pur- general seat where tribals can participate.
- red areas- residential school- live food + clothes
  yellow + green- mainstream education is practiced
- language is being forgotten- barrier this form discourages indviduals to take part
- tribal parents- dont see any local values, conventional education paints tribal as backward
- strong communal sense to traditional arts and crafts
- strong sense of community ressilance needs + wants clothing (potential edu point)
- ghotuls are dead now
  archival and evolution of existing internally valued knowledge ghotul sena-
- bastar is dvided into 7 district- CGNet focus Bastanar mix yellow + green
- green- areas are increasing.

BASTAR - SECONDARY RESEARCH

Health care
Most members of the community believe in traditional medicine as opposed to conventional. It has proven effective - their most famous example of success is their containment of a malaria outbreak using a special "red ant chutney".
Traditional healing knowledge is passed down through generations, when youngsters assist the seniors and learn from them. However, the "low cost of herbal medicine is one of the reasons that discourage the younger generation to adopt the Vaidyas/Sirhas (Traditional Healer) as a profession."
"Majority of the young generation today do not know many plants and their medicinal values."

Insights

Under-satisfied needs, undervalued resources
It was found that in all three community studies that their position as economically disadvantaged was a result of the relationship between under-satisfied needs and undervalued resources.

In the Yanadi community, the value for their traditional knowledge and practices went down as science and technology presented resources that dominant social groups valued more. This resulted in the Yanadi community struggling to meet their basic needs as they were left to take jobs as labourers etc. This resulted in the loss of valuable traditional knowledge on a large scale.

For the craft communities in India, as a result of their crafts being undervalued they faced significant challenges in meeting their basic needs and sustaining themselves.

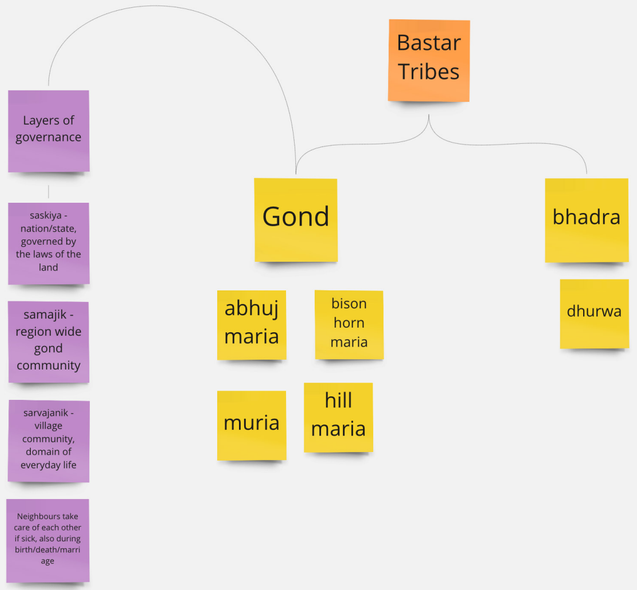
In the case of Bastar, the undersatified needs were in the fields of education and healthcare as the govt. has failed to facilitate this adequately. Their traditional educational and healthcare practises are now undervalued with the introduction of mainstream systems, as well as traditional knowledge and skills in the areas of crafts, dance, magic, etc.

Education and Governance
In the Yanandi community traditional knowledge was passed down through generations via apprenticeships with family healers. Decisions in the community were taken by “elders”, “During collection, the Yanadi go together and the community head decides about the place of collection and how to share. This provides clear evidence that the entire hamlet listens to the elder’s advice and that knowledge is generated and held collectively.”(Post it) Now they are mostly governed by central representatives who have little knowledge about the community or the land.

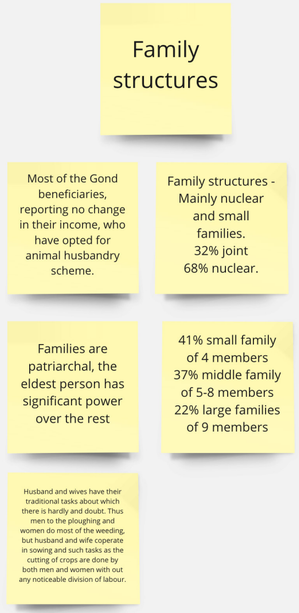
In Bastar, schooling used to take place in Ghotuls, where students learned the traditional community practices, however outsiders who came to visit and learned about their sex education blew up this aspect and tainted their reputation. Youngsters also learned about traditional medicine through assisting healers in the community. Since the monetary value of traditional medicine has dropped, fewer people venture into that field. However, a majority of the community still believe in it and trust the healing techniques. Conventional schooling is scarce and inefficient in Bastar. In addition since the language of instruction is Hindi, most local students struggle to grasp concepts. Since conventional education fails to equip them adequately in order to compete in the mainstream system, and also looks down upon the traditional knowledge, students who receive formal schooling develop a dislike for their culture, but are also unable to succeed in the mainstream system. The Bastar community is tight knit, and operates on a communicative action model. They make decisions within the community based on the needs of the entire community and help each other out. The richer adivasis don’t participate in this way however, and look after their own needs individually.

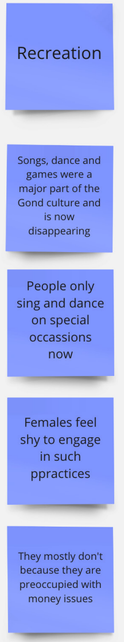
Govt intervention restricting access to traditional medicine resources
Both Bastar and the Yanadi community were restricted from access to their natural resources by government intervention and forest conservation policies. The communities were displaced from their forests and forced to find other means to sustain themselves.

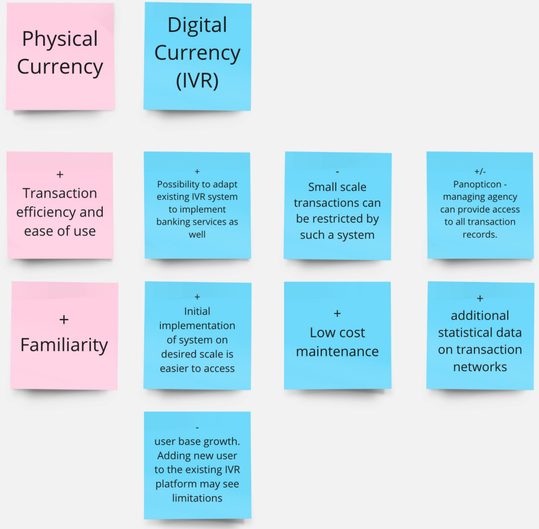
Narrowing down to one community (Bastar)
Based on the interviews and research on the communities, Bastar community, specifically the yellow zone within Bastar, was the most appropriate for designing and implementing a complementary currency. By mapping information on their economy, family structures, culture, etc. insights were drawn that identified the under-satisfied needs and under-valued resources that the currency could help promote. Research around the types of currency (Digital and Physical) was also done. This helped in weighing out the pros and cons of which modes the currency could adopt.


Bastar Tribes
Layers of governance
saskiya - nation/state, governed by the laws of the land
samajik - region wide gond community
sarvajanik - village community, domain of everyday life
Neighbours take care of each other if sick, also during birth/death/marriage
Gond
abhuj maria
bison horn maria
muria
hill maria
bhadra
dhurwa

Economy
52% of the people are associated with agriculture and their monthly income is below 2000
32% are landless and 68% own land
Poorer Gonds work in the fields of the richer Gonds.If at all there is any work, men get about Rs. 25 and women Rs.20 as a day's wage. They love hunting and wild meats are their favorites.
Major spending:
1. foodgrains -rice
2. Illnesses and medical expences
3. Education spending is neglected
A lot of people take loans for agriculture
Economy self sufficiency, through employment permits a higher degree of economic individualizing which is not comparable with the interests of the joint family
Investment patterns:
A majority of labourers and servicemen invest a part of their earnings in land
A few of them have been distilling liquor themselves for which they take all precautions so that the excise officials may not know it. This is a new trend in their economic life and have been found to be a good source of income.
The tribes like Oraon, Munada, Korwa, Parhaiya etc. and the other castes living in the rural areas has sufficient knowledge of these traditional medicines. - consult other castes and tribes
The economic life of Gond tribe is indefinite in Bastar district still to day do temporary cultivation
The present position is that most of them have become landless in their own settlement and the people of other castes and tribes have become the owner of land.
Trends show that the modern means of transportation are acceptable to there people and they use these when their economic condition enable them to do so


Family structures
Most of the Gond beneficiaries, reporting no change in their income, who have opted for animal husbandry scheme.
Family structures - Mainly nuclear and small families.
32% joint
68% nuclear.
Families are patriarchal, the eldest person has significant power over the rest
41% small family of 4 members
37% middle family of 5-8 members
22% large families of 9 members
Husband and wives have their traditional tasks about which there is hardly and doubt. Thus men to the ploughing and women do most of the weeding, but husband and wife coperate in sowing and such tasks as the cutting of crops are done by both men and women with out any noticeable division of labour.


Recreation
Songs, dance and games were a major part of the Gond culture and is now disappearing
People only sing and dance on special occassions now
Females feel shy to engage in such ppractices
They mostly don't because they are preoccupied with money issues


Physical Currency
+
Transaction efficiency and ease of use
+
Familiarity
Digital Currency (IVR)
+
Possibility to adapt existing IVR system to implement banking services as well
+
Initial implementation of system on desired scale is easier to access
-
user base growth. Adding new user to the existing IVR platform may see limitations
-
Small scale transactions can be restricted by such a system
+
Low cost maintenance
+/-
Panopticon - managing agency can provide access to all transaction records.
+
additional statistical data on transaction networks

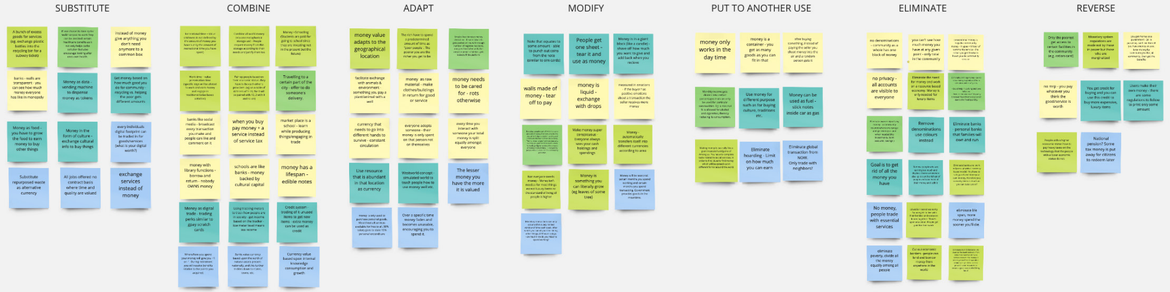
Ideation

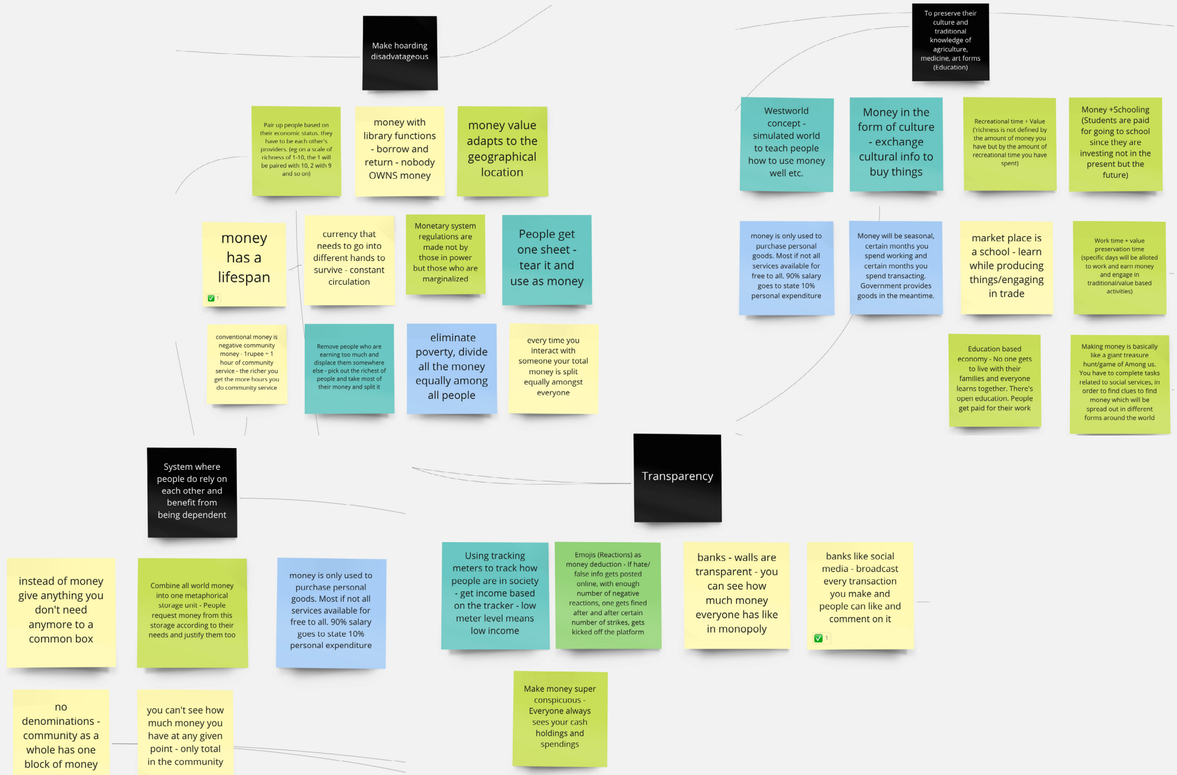
Scamper is a brainstorming method that was used to generate ideas for the currency system that was being designed for the Bastar community. By performing scamper, the ideas that were generated paved a path for rethinking the current system as well as reimagining how the currency system in the future could be. This process generated ample amounts of ideas that could be narrowed down and pair together to create a system that could help the Bastar community.

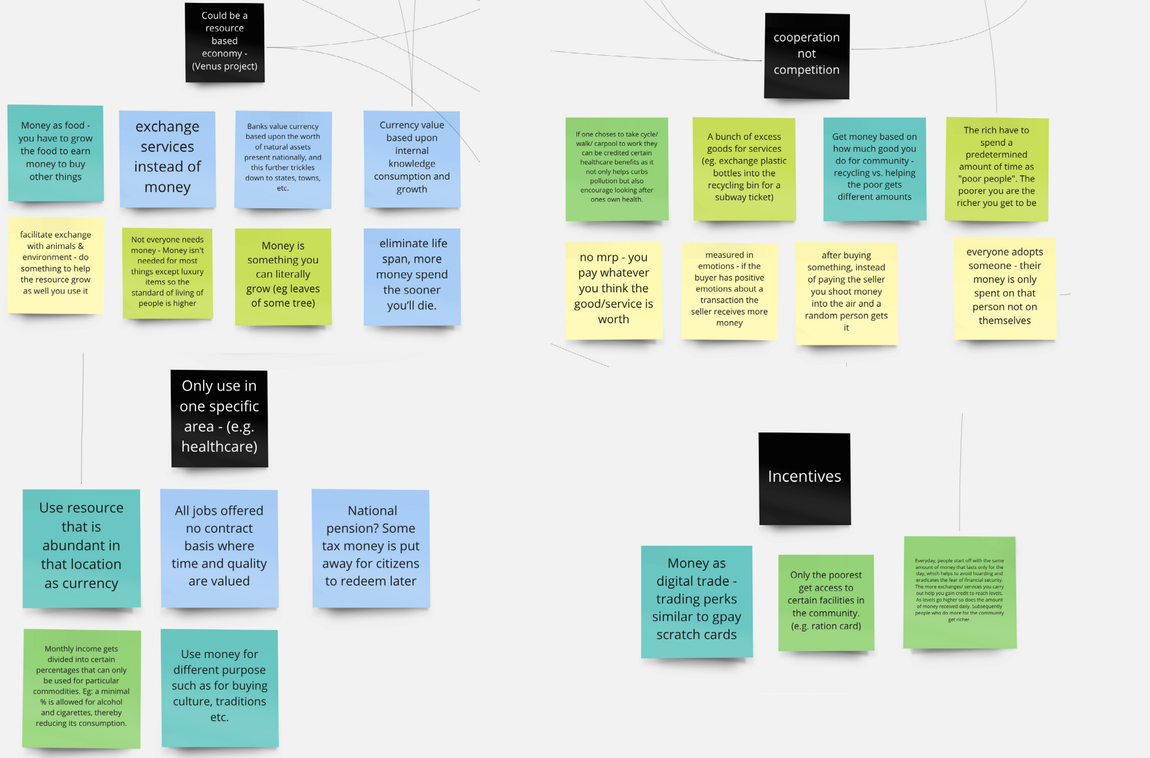
After the scamper ideation session was complete, the ideas needed to be discussed and organised into themes. By grouping similar ideas together, themes began to emerge that helped understand elements of the system that could possibly be incorporated into a currency system. While grouping the ideas, many of the ideas seemed to be related to each other thus forming connections between ideas and different themes. These themes included systems where people could rely on each other, preserving culture and traditional knowledge, making hoarding disadvantageous, introducing a resource based economy, incentives to use the system, transparency, use in a specific area, and encouraging cooperation over competition.

While these ideas could picture a large currency system, to fit the context of Bastar narrowing down these ideas was necessary. To do this, each idea under each theme was discussed to understand if the idea could be incorporated keeping in mind the needs of the community. Some of the ideas that were not possible or would not fit into the context of Bastar was removed. Finally by applying critical theory principles, the affinity map was left with ideas that became the building block for creating the currency system for the community in Bastar.

SCAMPER




Make hoarding disadvtageous
Pair up people based on their economic status. they have to be each other's providers. (eg on a scale of richness of 1-10, the 1 will be paired with 10, 2 with 9 and so on)
money with library functions - borrow and return - nobody OWNS money
money value adapts to the geographical location
money has a lifespan
currency that needs to go into different hands to survive - constant circulation
Monetary system regulations are made not by those in power but those who are marginalized
People get one sheet - tear it and use as money
conventional money is negative community money - 1rupee = 1 hour of community service - the richer you get the more hours you do community service
Remove people who are earning too much and displace them somewhere else - pick out the richest of people and take most of their money and split it
eliminate poverty, divide all the money equally among all people
every time you interact with someone your total money is split equally amongst everyone
To preserve their culture and traditonal knowledge of agriculture, medicine, art forms (Education)
Westworld concept - simulated world to teach people how to use money well etc.
Money in the form of culture - exchange cultural info to buy things
Recreational time + Value (Vs)chress is not defined by the amount of money you have but by the amount of recreational time you have spent)
Money +Schooling (Students are paid for going to school since they are investing not in the present but the future)
money is only used to purchase personal goods. Most if not all services available for free to all. 90% salary goes to state 10% personal expenditure
Money will be seasonal, certain months you spend working and certain months you spend transacting. Government provides goods in the meantime.
market place is a school - learn while producing things/engaging in trade
Work time + value preservation time (specific days will be alloted to work and earn money and engage in traditional/value based activities)
Education based economy - No one gets to live with their families and everyone learns together. There's open education. People get paid for their work
Making money is basically like a giant treasure hunt/game of Among us. You have to complete tasks related to social services, in order to find clues to find money which will be spread out in different forms around the world
System where people do rely on each other and benefit from being dependent
Transparency
instead of money give anything you don't need anymore to a common box
Combine all world money into one metaphorical storage unit - People request money from this storage according to their needs and justify them too
money is only used to purchase personal goods. Most if not all services available for free to all. 90% salary goes to state 10% personal expenditure
Using tracking meters to track how people are in society - get income based on the tracker - low meter level means low income
Emojis (Reactions) as money deduction - if hate/ false info gets posted online, with enough number of negative reactions, one gets fined after and after certain number of strikes, gets kicked off the platform
banks - walls are transparent - you can see how much money everyone has like in monopoly
banks like social media - broadcast every transaction you make and people can like and comment on it
Make money super conspicuous - Everyone always sees your cash holdings and spendings
no denominations - community as a whole has one block of money
you can't see how much money you have at any given point - only total in the community


Could be a resource based economy - (Venus project)
Money as food - you have to grow the food to earn money to buy other things
exchange services instead of money
Banks value currency based upon the worth of natural assets present nationally, and this further trickles down to states, towns, etc.
Currency value based upon internal knowledge consumption and growth
facilitate exchange with animals & environment - do something to help the resource grow as well you use it
Not everyone needs money - Money isn't needed for most things except luxury items so the standard of living of people is higher
Money is something you can literally grow (eg leaves of some tree)
eliminate life span, more money spend the sooner you'll die.
Only use in one specific area - (e.g. healthcare)
Use resource that is abundant in that location as currency
All jobs offered no contract basis where time and quality are valued
National pension? Some tax money is put away for citizens to redeem later
Monthly income gets divided into certain percentages that can only be used for particular commodities. Eg: a minimal % is allowed for alcohol and cigarettes, thereby reducing its consumption.
Use money for different purpose such as for buying culture, traditions etc.
cooperation not competition
If one choses to take cycle/ walk/ carpool to work they can be credited certain healthcare benefits as it not only helps curbs pollution but also encourage looking after ones own health.
A bunch of excess goods for services (eg. exchange plastic bottles into the recycling bin for a subway ticket)
Get money based on how much good you do for community - recycling vs. helping the poor gets different amounts
The rich have to spend a predetermined amount of time as "poor people". The poorer you are the richer you get to be
no mrp - you pay whatever you think the good/service is worth
measured in emotions - if the buyer has positive emotions about a transaction the seller receives more money
after buying something, instead of paying the seller you shoot money into the air and a random person gets it
everyone adopts someone - their money is only spent on that person not on themselves
Incentives
Money as digital trade - trading perks similar to gpay scratch cards
Only the poorest get access to certain facilities in the community. (e.g. ration card)
Everyday, people start off with the same amount of money that tasks only for the day, which helps to avoid hoarding and eradicates the fear of financial security. The more exchanges/ services you carry out help you gain credit to reach levels. As levels go higher so does the amount of money received daily. Subsequently people who do more for the community get richer.

cultural capital

social capital

economic capital

social reproduction

Communicative action

strategic action

reciprocity

panopticon

habitus

System where people do rely on each other and benefit from being dependent

People request money from this storage according to their needs and justify them too - COMMON POT

money is only used to purchase personal goods. Most if not all services available for free to all. 90% salary goes to state 10% personal expenditure

Transparency

everyone gets to decide how the common pot is used

Could be a resource based economy - (Venus project)

Money as food - you have to grow the food to earn money to buy other things (experience)

exchange services instead of money

Currency value based upon internal knowledge consumption and growth

encouraging sustainable practices

Not everyone needs money - Money isn't needed for most things except luxury items so the standard of living of people is higher

Banks value currency based upon the worth of natural assets present nationally, and this further trickles down to states, towns, etc.

To preserve their culture and traditional knowledge of agriculture, medicine, art forms (Education)

Money Management - Educate members on how to divide their assets for maximum personal benefit

Exchange & preserve cultural knowledge for monetary gains E.g. (add value to TK along with mainstream edu)

Money will be seasonal, certain months you spend working and certain months you spend transacting. Government provides goods in the meantime. - SEASONAL SCHOOLING

Money +Schooling (Students are paid for going to school since they are investing not in the present but the future)

market place is a school - learn while producing things/engaging in trade
E.g. apprenticeship

Education based economy - No one gets to live with their families and everyone learns together. There's open education. People get paid for their work

Gamifying the education system, tasks that can be completed to reach level - get money for that - tasks are what's good for community - you wont get reward only if everyone does task

cooperation not competition

If one choses to take cycle/ walk/ carpool to work they can be credited certain healthcare benefits as it not only helps curbs pollution but also encourage looking after ones own health.

The rich have to spend a predetermined amount of time as "poor people". The poorer you are the richer you get to be (E.g Tax)

Only use in one specific area - (e.g. healthcare)

Use resource that is abundant in that location as currency

National pension? Some tax money is put away for citizens to redeem later (Common fund)

Monthly income gets divided into certain percentages that can only be used for particular commodities. - money management

Incentives

Partaking in local currencies furthers the quality "perks" received

Only the poorest get access to certain facilities in the community. (e.g. ration card)

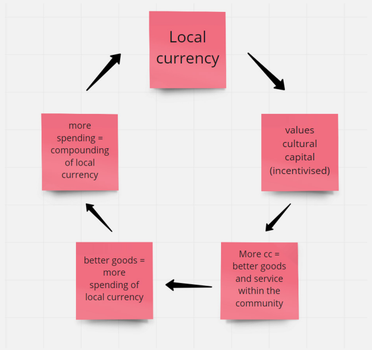
Objectives for Complementary Currency

Objectives for the current complementary system were constructed from the emerging themes from the affinity mapping. From these objectives, the elements of the system that were ideated on could be shaped into the context of Bastar.

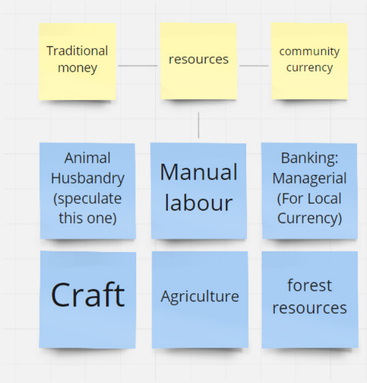
- To create a system where people benefit from inter-dependence and make decisions collectively.
- To create a system that values the culture and traditional knowledge related to agriculture, art forms and medicine.
- To make hoarding disadvantageous
- To introduce a resource based economy
- To ensure that the community is cooperative and not competitive
- To make the currency system transparent
- To use the system in one specific area (i.e. Healthcare, Education)
- To ensure that the new form of currency boosts the local economy without isolating the area from the outside world

High-Level Ecosystem Map

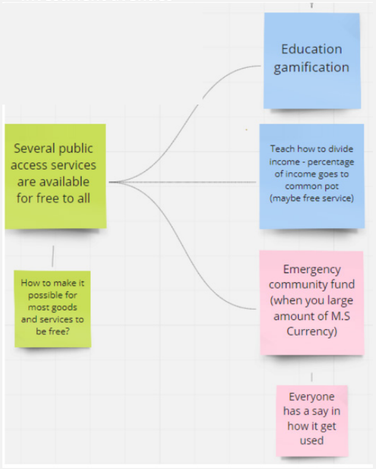
Circulation of money through the complementary currency system (in Bastar)

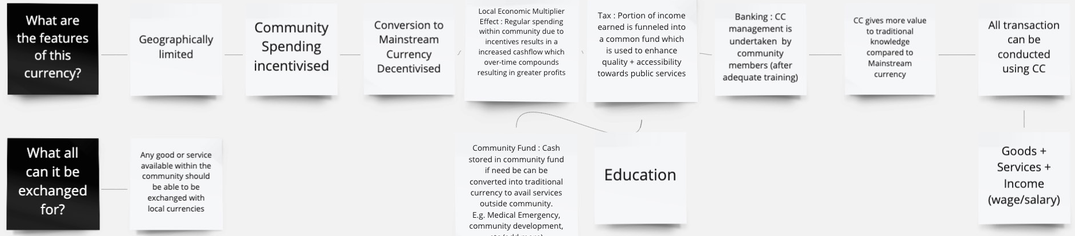


Local valuable resources

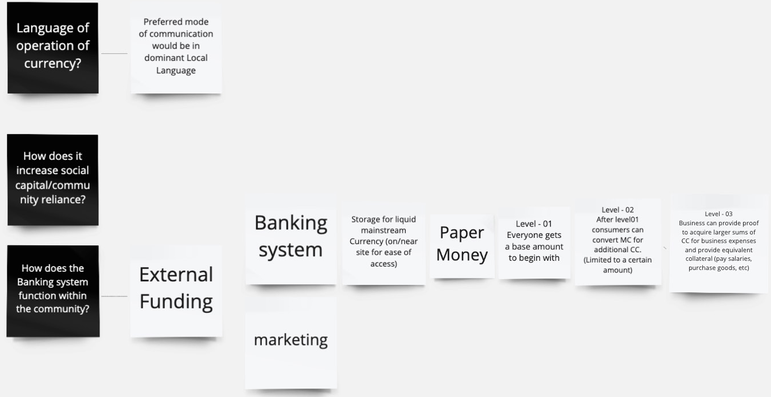


Benefits of boosting local economies - potential investment avenues





Questions and Answers

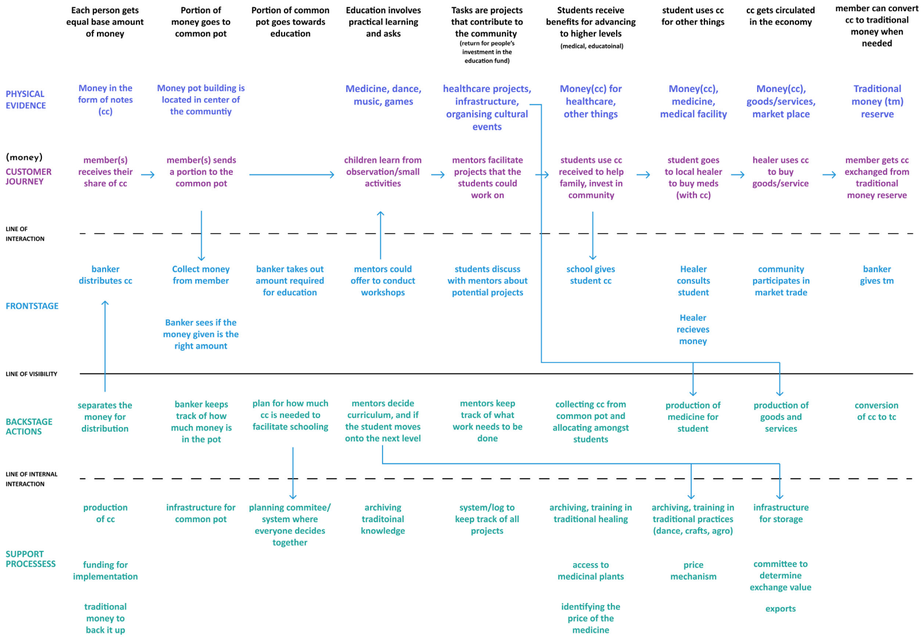


The complementary currency system is intended to facilitate exchange in all areas within the community ecosystem. For this project, the fields of healthcare, education and agriculture were chosen and designed in depth.
Industries- Education and Healthcare
Planning of the education system:
The education system is designed to value traditional knowledge, and incorporate practical teaching methods through observing, engaging with and assisting local practitioners in their work. The system consists of levels with tasks that require increasing levels of engagement and contribution, so that learning is more practical and the community sees education as a contribution instead of a burden on families.

Valuing traditional healthcare:
The value of traditional knowledge in the field of healthcare could be increased through incorporating it in the education system, raising trust and awareness about its benefits and incentivising spending on traditional healers as opposed to conventional.

Service Blueprint

The service blueprint was made to visualise the flow of the money through the community. The blueprint maps the different stakeholders involved in the system as well. The customer journey is done in the perspective of money to map how the community currency.



Final Form Process

To begin crafting the final form for our comlimentary currency system, we started by reflecting upon the effect a complimentary currency might play on the members partaking in the system. As an overall goal we wanted to convey the role members play not only in sustaining their local economy but also in the shape and development of their community.
We chose to express these goals by creating a simple board game that allowed players to make decisions which would affect the overall form and outcome of their community. Placing emphasis on collaboration, security and improvements in basic communal resources enabling community members to expand the scope of their internal knowledge systems.

The first round of game ideas was worked on individually, which allowed us to view the problem - solution relationship from multiple perspectives.

Game Ideas : Round 01

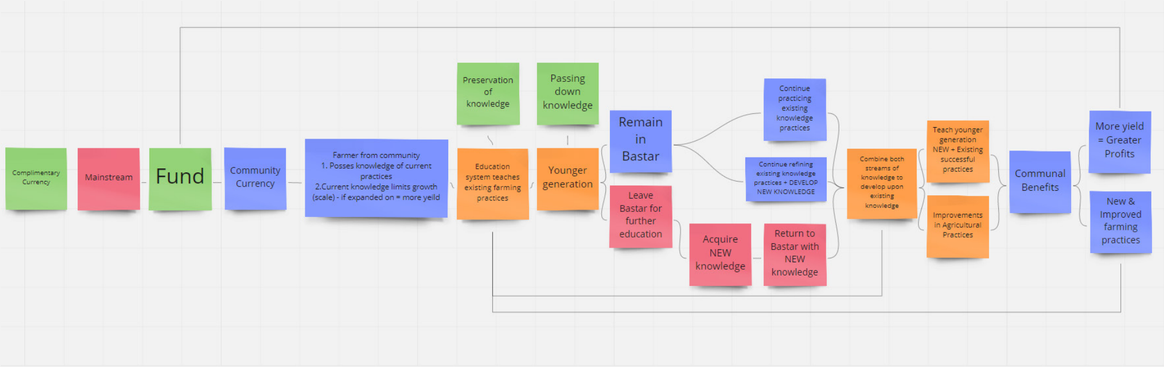
Idea 01 The idea was to study the two conflicting forces at play in the yellow zone of Bastar and the influences of the mainstream monetary system, which led to the loss in value of traditional knowledge and to revive these traditional practices. With players approaching the game from either a perspective that values traditional knowledge and cooperation, or a perspective that values modern conventional practices, they complete tasks to build a community.

Goal- To build a complete community using either collaboration and cooperation OR competition.

Two teams play with different approaches (habitus)- one team has to work together and can only have a collective win (communicative action), while the other team competes with their teammates for an individual win (strategic action).

There are tasks that the players will have to complete in a particular order, and which require a certain number of capital (social, cultural and economic) and resource cards. The different ways in which a person could complete a task depends on which team they are a part of.

The objective is to observe who completes more tasks with their different approaches.
Q- Is sticking purely to traditional practices the best way to build a community? Is using modern practices a better way? Is it possible to have a healthy mix of the two?

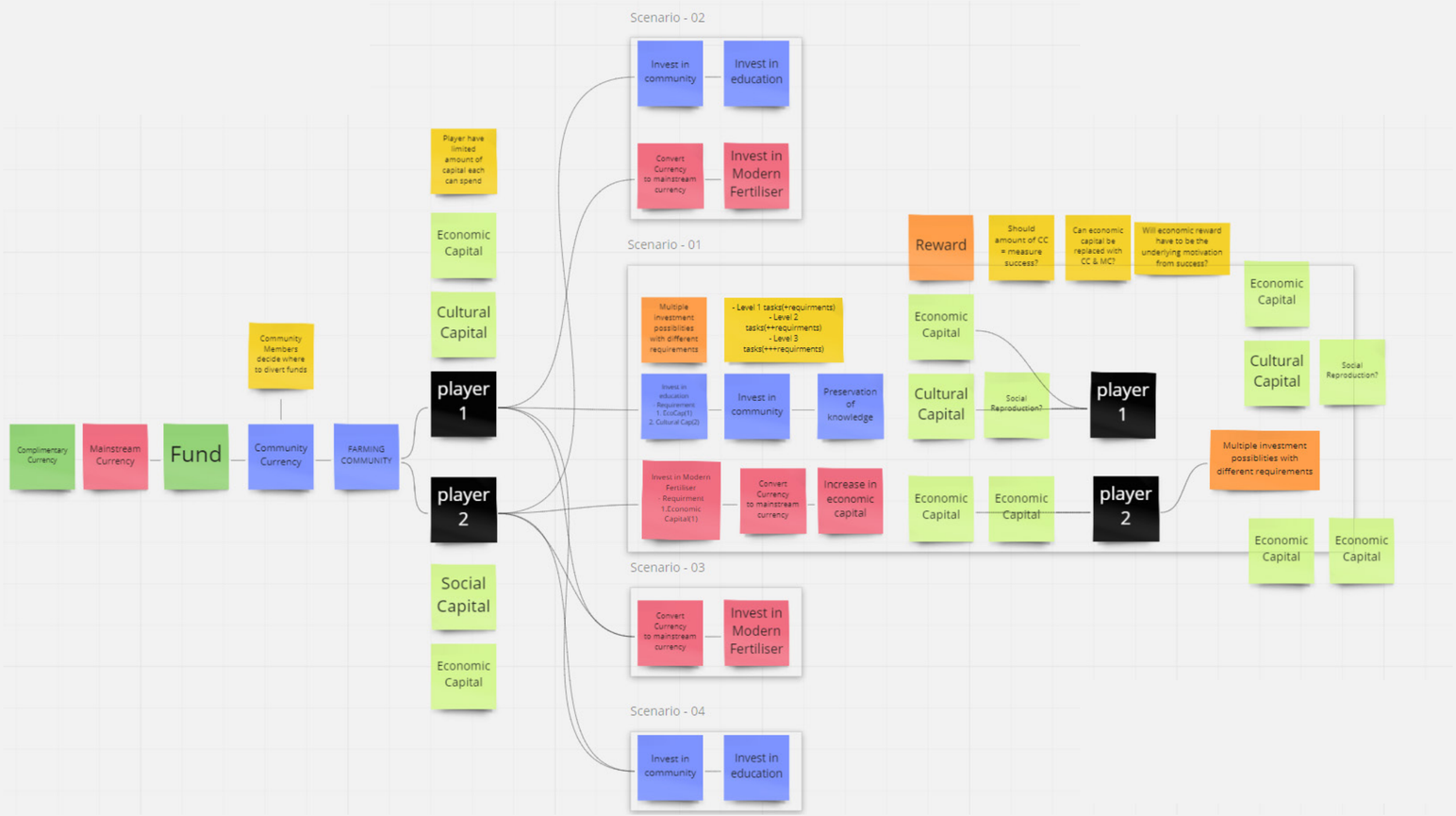


Idea 02 I began planning out a rough version of our game. I started by creating rough “currency flow” maps to better describe which parts of the system are interdependent on each other.

Once the flow of currency from beginning to end was mapped out I began narrowing down on specific elements considering the effect each actor plays on each aspect of the system making it possible to develop simple play through mechanics where player decision will ultimately impact the success of their community. I made sure to account for motive through incentives and deterrents within the system.

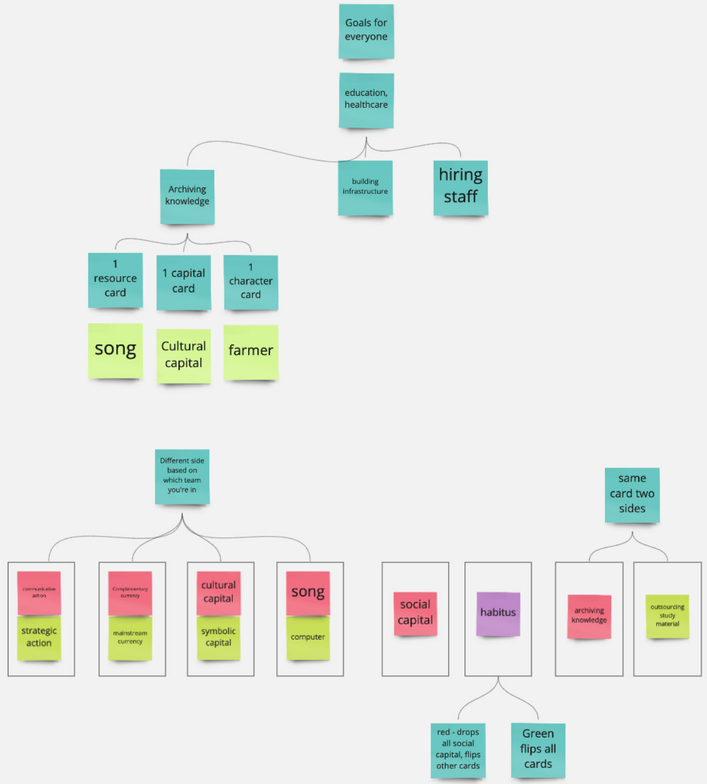
Player’s would navigate through a skill-tree shaped board, progressing forward through the skill tree by completing tasks along the way. During gameplay, players would be required to return the knowledge they had obtained within the community. Allowing players to play the board as they see fit. The gameboard interpreted tasks in an open-ended format where players could conduct themselves as they see fit, but assisting in development internally through currency and knowledge would reap the most benefit for the individual player and the whole community (other players).

GAMELPLAY SCENARIOS



Idea 03 - The aim of the game is to realize the power of communicative action and to be able to organize currency at hand whilst thinking about the motivations of particular “characters’ in the community of Bastar.

I began by listing all the critical theory concepts that I wanted to interweave in the game. The game starts out with people receiving a character card each and then playing to understand the goals and motivations of that character. A concept of common pot where people decide the amount of money they want to contribute towards the community. Education (learning from practical experiences and collaboration) was at the centre of the gameplay with multiple ‘levels’ of education being interwoven with other occupations, which needed to be completed as tasks using different capitals.



Idea 04 The game consists of cards that are placed in a grid like fashion on a board. Each of the cards has a task that needs to be completed by the players that includes requirements and rewards for completing the task. The players are able to see all the tasks that are needed to complete the community. The aim of the game is for all the players in the game to complete all the tasks by collaborating with each other and pairing resources in order to finish the tasks on the board.

The game also includes a deck of cards that includes a pile of resources, capital, and money that will be helpful throughout the game. When the game starts each player during their turn picks a card from the deck and during their turn can play a card on the task cards in front of them. Once a task is complete, meaning all the requirements are fulfilled, the task card is flipped over and an image of when the task was completed will be revealed to signify that the task is over. When all the tasks are complete, the cards together will form a whole community. If the tasks are not complete, the community will only be slightly developed, thus the players must work together to complete the tasks and strengthen their community.

Idea 05 The game begins with every player getting equal amounts of mainstream and complementary currency. A task is picked at random that requires a certain amount of cultural, social and symbolic capital. After the distribution, the players can pitch in some currency or capital to the common pot which will be in the form of a ‘face-up board’. Currency and capital from the common pot can be borrowed as and when needed but needs to be replaced. To complete the tasks, Critical Theory based action cards need to be played that add or subtract capital or currency from the player. The tasks in the game adhere to passive skills that are character specific, which in turn form to become a connected skill tree that represents the community. Each character has motivations that nudge them into performing actions that may not be communicative in nature but are needed to bring in strategic action to maintain the game. Capitals can be paired with resources to add more value. The game is won when the tasks are completed with high social interactions represented with the number of social capital.

After all project contributors and explained their idea we went through each interpretation identifying elements which best accomodated the ideas we wanted to convey. We chose to bring in elements from each iterations to concot one cooherent game which would be iterated upon through playtesting, making sure to fulfill the objective outlined for the currency to fulfill as an aid to the community.

Our final idea drew from elements outlined in idea 02, shaping progression on the gameboard in the form of a skill tree we mapped out milestone achievements which would enable the community to improve internal quality of life and over time allow them to play a profitable role in the conventional economy. To progress through the game players would need to account not only for currency but also for key internally valued capitals and incentivize players to invest more of themselves in developing these valuable assets. The game also features elements of money management, inveting and co-operative success making sure to hgihlight the potential for success through internal investment placed upon traditional knowledge practices.

Play Testing

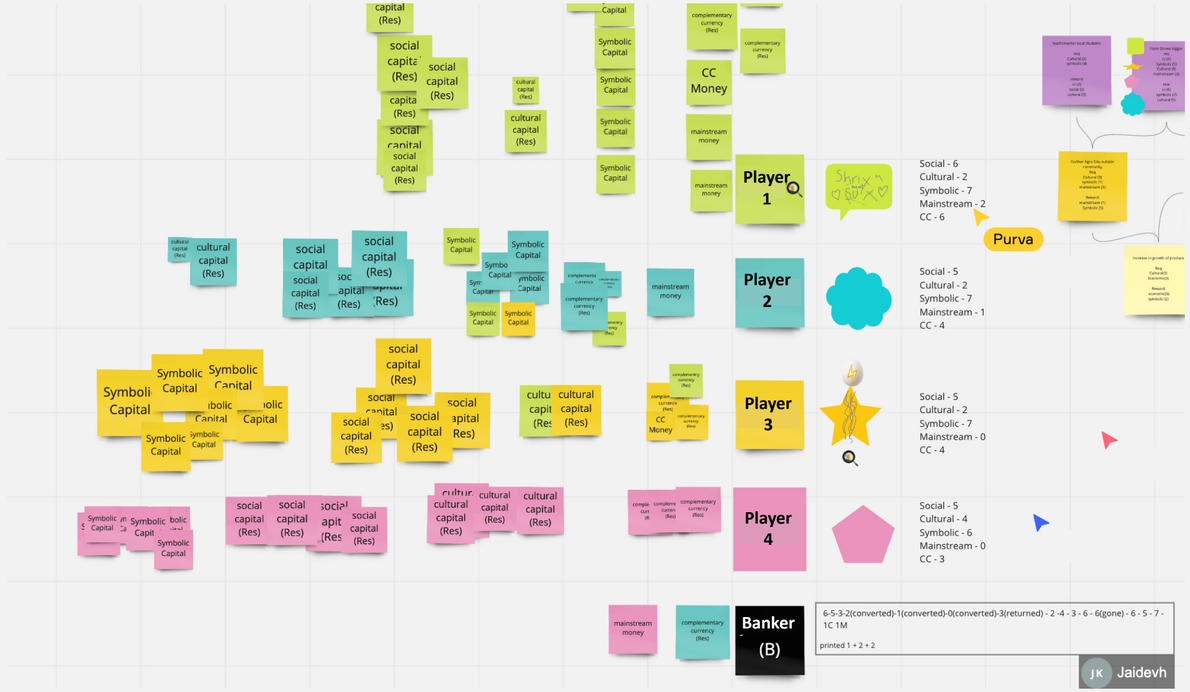
Playtesting the game was a crucial element in our research. Playtesting the game would allow us to repair and refine various aspects of the game but it also made it possible for us to track the progress of our systems implementation in a hypothetical scenario.
The ebb and flow that we observed during our testing seemed to reflect the effect we desired out alternative currency to possess.

Playtest 1 - During the first playtest we observed that players were able to navigate through the game board with ease, the currency in the bank held somewhat steady and provided appropriate funding. The most significant criticism we held to this version of the game was that it was “too easy” to work your way up. The game board presented players with no hurdles to hinder their progress.

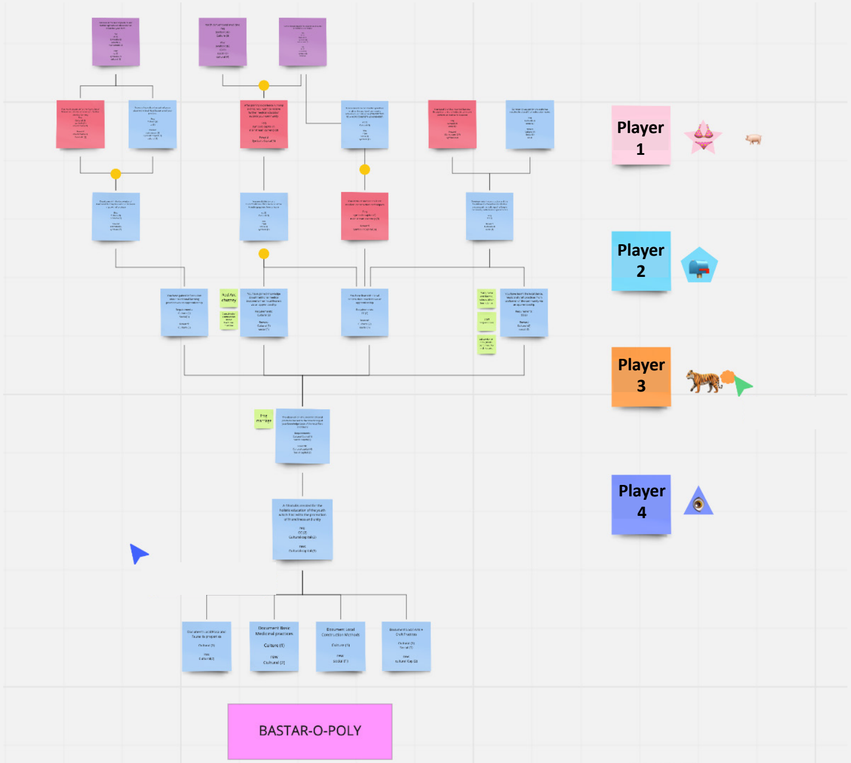
Playtest 2 - For the second playtest the game board featured an added element of randomness which could take the shape of a benefit or detriment. In an attempt to replicate the unpredictability often faced with development, certain portions of the game would require players to draw a random card and see which “situation”

Playtest 3 - For the third playtest, the final elements including the usage of the common pot needed to be put to the test. During the playtest after a round has been played by all the players, the players can choose to add any amount of complementary currency into the common pot. During the game, since most of the players started out with a good amount of capital, putting money into the common pot became easy. The rewards from the tasks also helped the players add money into the common pot while still able to keep money in hand and unlock tasks quite easily. The goal of the common pot was to help the players in gaining currency that would help them complete tasks that needed a high amount of money. From this outcome, small tweaks were made to the initial complementary currency given to each player at the start of the game.

Playtest 01

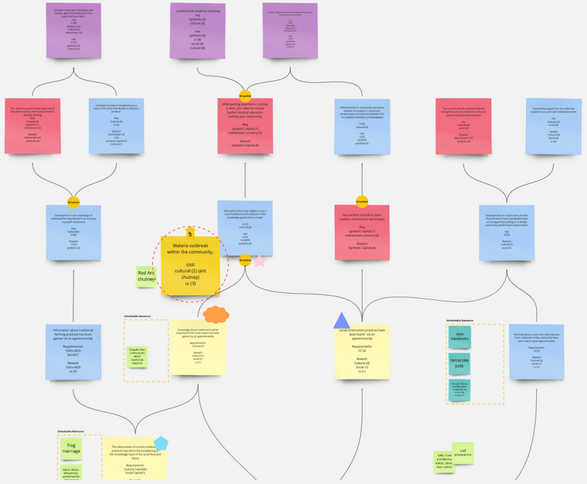


Playtest 02

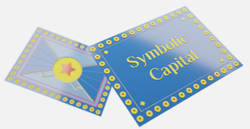


Playtest 03

COMMUNI-TEAM



Final Form



Preparation

To setup the game board players are required to lay the game board open on a flat surface. The top of the game board features placement markers with numbers assigned to each location corresponding with a number behind a Task Cards.
All Task cards at the start of the game must be placed face up on the board.
Beside certain Task cards a demarcated portion will host the “Unlockable Resource”.

Another demarcated location on the board labelled “Situation Cards” will be the region where “Situation” cards are to be placed face down
Before beginning the game each player shall hold :-
Cultural Capital = 2 Cards
Social Capital = 2 Cards
Community Currency = 3 Tokens

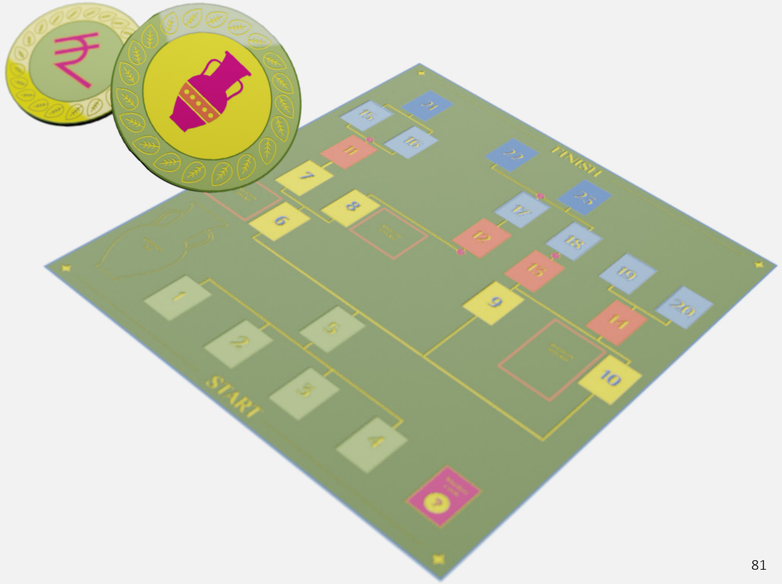
Bank

A separate player, although not necessary can act as the Banker for the community.

The role of the banker is to manage the Funds stored in the bank and also to distribute Capital & Currency Rewards upon the completion of Tasks.
The bank will hold the total sum of Initial Funding provided to the community. This Initial Fund can be used to convert Currency.
The bank must operate at a 1:1 conversion rate where 1 Rupee token = 1 community Currency token.
Players can convert any amount of Currency on their turn, otherwise players must wait until it is their turn to convert Currency.

The Play

The game can be started by any player by placing capital cards in their possession atop any of the Tasks on the bottom most tier of the board.
A Task can be declared as completed by flipping the card over after all Requirements are met.
Each player can play 2 cards during their turn. These cards can be submitted in any one of the combinations listed- 2 Capital cards, 2 Currency cards,1 Capital card + 1 Currency card.
As players move upwards through the board the “Requirement” assigned to each task will progressively increase, when this occurs players have the option of collaborating on tasks to accomplish them faster.
Any number of players can choose to work collaboratively on any task.
After a task has been completed, if it was accomplished individually the player that completed the task can take the total sum outlined by the “Reward” section on each Task. If more than one player has collaborated to complete a Task the “Reward” amount must be divided among all parties involved after discussing how to divide the reward amongst themselves.
Players cannot complete a task unless the root task prior to it has been fulfilled.
Common Pot- At the end of each round after the last player has played their turn, all players must take a moment to review their funds and decide if they as a community would like to set aside a specific sum of any type of currency in the “Common Pot” section on the board. The Common Pot acts as an emergency fund for players to redeem when faced with an impassable task due to resource limitations. The Common Pot can only hold Currency cards and not Capital cards. Any and all players can deposit a portion of their funds into the Common Pot at the end of each round (after the last player has played & before the first player plays again).
Situation Cards- Along the board certain Tasks will host a “Situation” token below or above them. These situations will be encountered before a player completes a task if the situation is at the bottom of a Task card or after a Task is completed if it is placed at the top of a task card.
Players cannot progress through the board until the Situation card they face has been completed. Players can choose to redeem funds from the Common Pot to accomplish some of these tasks.
Some situation cards will reward players with Capital and/or Currency while others may pose themselves as deterrents to the development of your community.
Certain Situation cards will require you to deposit an “Unlockable Resource” along with Capital and Currency cards to fulfill them. These “Unlockable Resources” are placed beside certain tasks. They can only be retrieved after the task they are paired with has been accomplished.
The game is completed after all listed Tasks have been fulfilled.



GAME BROCHURE

To play the digital version of Communi-Team
scan this QR code

GAMEPLAY

1. The game can be started by any player by placing capital cards in their possession atop any of the tasks on the bottom most tier of the board.

2. A Task can be declared as completed by flipping the card over after all requirements are met.

3. Each player can play 2 cards during their turn.These cards can be submitted in any one of the combinations listed - 2 Capital cards, 2 Currency cards,1 Capital card + 1 Currency card.

4. As players move upwards through the board the "Requirement" assigned to each task will progressively increase, when this occurs players have the option of collaborating on tasks to accomplish them faster.

5. Any number of players can choose to work collaboratively on any task. Each player can place their token on the task to keep track of the contributions

We've already set up a game for you, visit here to play

https://www.figma.com/file/fi9n3a4xspfVGQo2DxNxcQ/Communi-Team?node-id=0%3A1

Reflective Statement

What is the future of money? 8 weeks back if I was asked this question my answer would probably be directed towards digital currencies ,cashless transactions and other developments. I would not have thought to consider the role money plays in everybody's lives. As my group and I began conducting research regarding our topic the intricate web that money and society has woven slowly but surely began undoing itself. We started by redefining our approach to analysing information, we approached these systems by placing overall well being at the centre of your legend for success. As we navigated this space the disproportional disadvantages onset by historical discrimnation only highlighted the limited reach and impact current currency systems impart. The capitalist nature of today's society greatly alters the way we choose to navigate out spaces. Money as a motivator for individual well being is the breed of success taught to most of us, and questioning the fault's in a motivation system like this can feel contradictory as it isn't how most systems operate. Re-shaping my perception and adopting that into a theoretical system was a process which at the end only made it clearer that the current motivation set that conventional money requires is deeply flawed. I am glad to have been able to spend so many weeks grasping this concept, without being able to dedicate this much time to research I doubt I would have reached this same conclusion. Rather than focusing on money, approaching problems from a context perspective made it clear what the ideal path to betterment might look like. If possible I would have gladly spent more time refining this project considering the wealth of data we processed.

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SRISHTI
Institute of Art, Design and Technology

PRE THESIS PROJECT **2020**

THE FUTURE OF MONEY: REIMAGINING SUSTAINABLE DEVELOPMENT

UOM REG. NO: 17DCD012

PROJECT: Reimagining Sustainable Development

PROGRAM: Undergraduate Professional Programme

AWARD: Human Centered Design

Examiner 1 (name and signature):

Examiner 2 (name and signature):

Examiner 3 (name and signature):

Date:

Academic Dean: