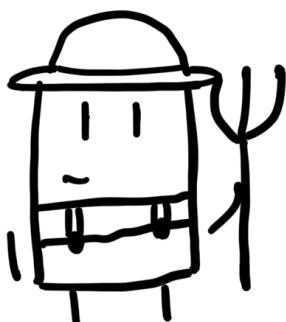
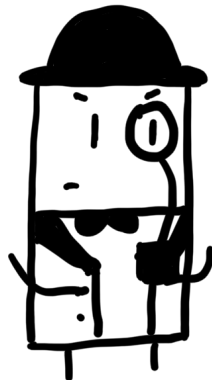
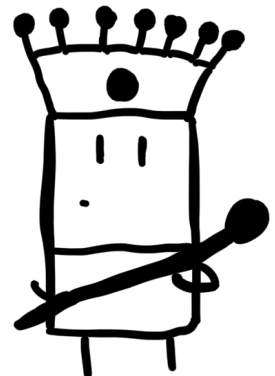
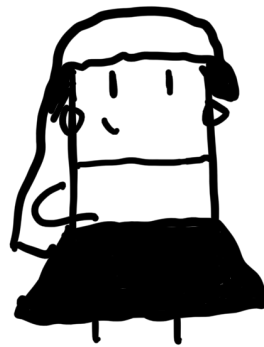
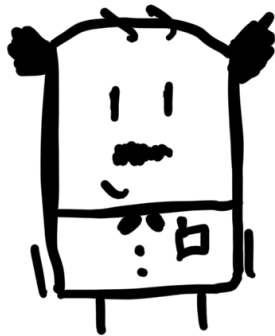
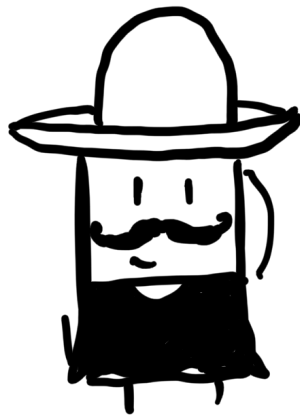


Perspective:

A social game of inequities.

MFA Design for Social Innovation

Thesis Project 2023



by Shashank 'Cynyassy' Sharma

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Glossary

Some of the abbreviations used in this paper are :

HC - High Caste

SC - Scheduled Caste

ST - Scheduled Tribe

OBC - Other Backward Classes

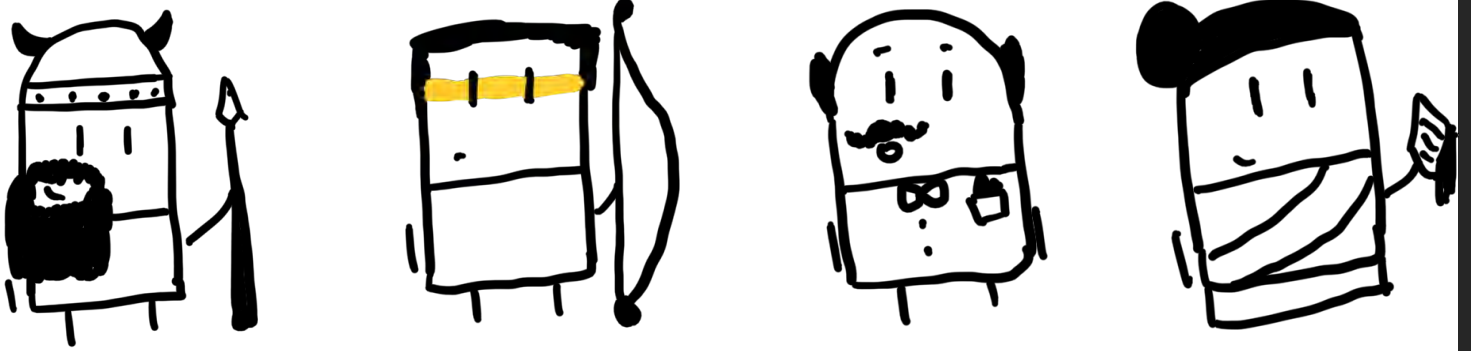
MPCE - Monthly per capita expenditure

RPG - Role Playing Game

LARP - Live Action Role Play

Intervention Designers - Development sector employees, school teachers (especially those in low income schools), social sector workers.

The Lore of Perspectives



Once upon a time, there was a land with many different communities living within it. Each community had its own unique culture, language, and way of life. Some communities were small and isolated, while others were large and influential. Over time, the communities began to interact with one another more and more. They traded goods and ideas, formed alliances, and sometimes even went to war with one another. As the interactions between the communities increased, so, too, did the disparities between them.

Some communities were able to accumulate resources and power more easily than others. They had access to fertile land, abundant natural resources, and favorable trade routes. Other communities, however, were not so lucky. They struggled to survive in harsh environments, lacked access to basic resources, and were often exploited by more powerful communities.

As time went on, the disparities between the communities became more and more entrenched. The communities with more power also began to create systems to maintain their advantages, passing laws and creating institutions that reinforced their dominance.

Eventually, these systems became so entrenched that they were seen as natural and inevitable.

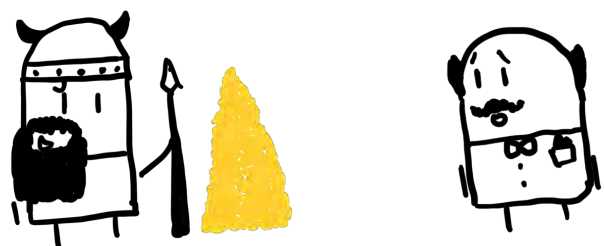
The communities with more power were able to maintain their advantages without even having to try, while those with less were trapped in a cycle of poverty and disadvantage.

This was known as social determinism.

At the same time, the geography of the land also played a role in determining which communities had access to resources and power. Some communities were located in areas with abundant natural resources and favorable climates, while others were located in harsh environments with little access to resources.

Over time, the communities in more favorable locations were able to accumulate more resources, while those in less favorable locations fell behind.

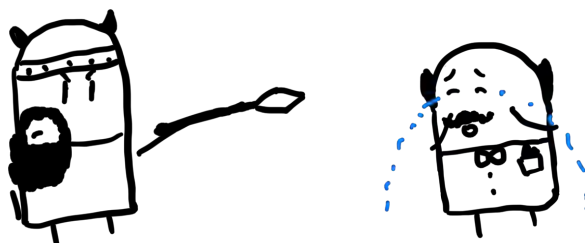
This was known as geographic determinism.



Once the disparities between the communities became more entrenched, the communities with more resources and power began to create systems to maintain their advantages. They passed laws and created institutions that reinforced their dominance over the communities with less resources and power. The communities with more power also began to look down upon the communities with less, viewing them as inferior and lazy. This led to discrimination and marginalization of the less powerful communities.

As time went on, the communities with more power began to manipulate and exploit the less powerful communities for their own gain. They took advantage of their labor and resources, and used their power to deny them basic rights and opportunities. This created a cycle of poverty and disadvantage that was difficult to escape from.

The communities with more power also created myths and stereotypes about the less powerful communities, portraying them as lazy, criminal, or unintelligent. These myths and stereotypes helped to justify their discrimination and exploitation, and made it difficult for the less powerful communities to challenge the systems that were keeping them down.



The End & The Beginning

Act 1

Background

A little about me!



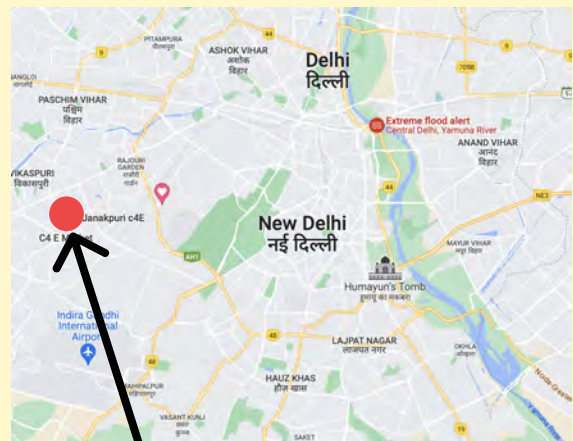
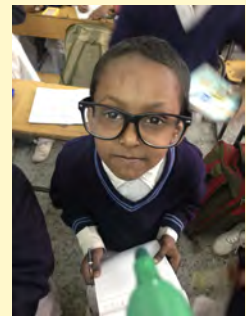
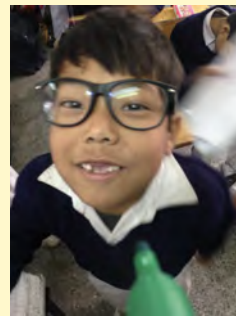
Hi! I am Shashank. I'm an Engineer, a Teacher, a Writer and Editor, a Marketing Professional, a Consultant, a Storyteller, a Comic Maker, an NVC practitioner, and now a Social Designer.

Since 2013 I have been actively engaged in the Education Network of India. Having gone through my schooling and engineering education in India, I had a fair understanding of the education system. Or so I believed to be true.

However, In 2013, I began a fellowship with Teach For India, an organisation that places fellows for a period of two years in low income government and private schools across multiple cities. Each fellow gets to teach a classroom for that duration. I taught a classroom for two years in a primary school in Janakpuri, New Delhi.

I was assigned **forty-two students** from the third grade and I was a full time teacher for the duration of those two years. I taught English, Hindi, Mathematics, Science, and Social Science.

TEACHFORINDIA



Janakpuri, New Delhi

The comics that you see spread throughout this process paper are made by me. I make comics under the nom-de-plume Cynnyassy. You can find me on Instagram!



Some tough ones too...

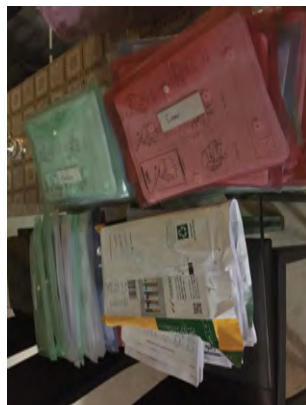


I was entrusted with the responsibility of planning lessons, executing those lessons, and managing the classroom just as any government teacher would. I had to take attendance, participate in mandatory teacher training, perform administrative duties related to the position of the teacher, and all other associated duties/responsibilities.

In essence, I was responsible for the welfare and education of forty-two students as a fellow.

Being a daily part of the school, being part of the administration, being a teacher to these students six days a week, I became acutely aware of the gap in their education from that of my own.

I went to some of the best schools in the country and was taught by some of the best teachers in the world. That is not the case for the majority of India.



While data tells one story, and I can regale you with many of those, what is stark about being in such spaces is how those statistics live out.

Statistics indicate that over 50% of V grade students cannot read grade II text*, my class of III graders were almost all at a '0' level in reading and mathematics.

I was able to witness many stories involving my students - while visiting their community, paying their homes a visit, or gathering them for events. I was made acutely aware of not just the economic differences, but also the class and caste differences between the students and myself.

I observed a number of issues that were driving the education gap:
Nutrition, Home Study, Parent Education, and Language Barriers.

More importantly almost all my students (barring a few) had no educated adults at home. This exacerbates learning issues, as there is no way for the child to share or practise with their parents about their work in school. Furthermore, English not being a spoken language in the community meant that the school and class were responsible for creating a content rich environment to practice language skills.

Having witnessed all this firsthand, the statistics I had read about turned into a very real reality for me. I keep in touch with them after my time at Teach of India and am therefore able to observe their lives. Some of my students stopped attending school and instead chose more dangerous vocations like bouncing at bars or hooliganism.

Some of my students from Teach For India, who were performing exceptionally, have been able to continue their studies and are aiming to now join higher education institutions. While some others who came from exceptionally poor backgrounds have fallen out of the system. I cannot establish communication with them anymore. I have seen the impact of their circumstances ballooning each year.

Teaching in Tihar Prison

I also gained valuable experience having the opportunity to teach at the largest Asian Prison (**Tihar Jail**) for about six months. I joined another fellowship called '**Jijivisha**' in 2016 where I was assigned to teach storytelling to 120 young prisoners (18-21 years old). What was surreal about the experience was the fact that Tihar was less than a mile away from the school I taught at during my TFI fellowship. I saw in these young prisoners the future of my own students: the majority of the room couldn't read or write. The few who could read were far below their grade level and could barely understand books from their primary education days.



Tihar Jail, New Delhi

It's pretty damning evidence that the lack of education left these folks with no discernible skills and so they likely had to resort to a life of crime. Also, poverty prevented a majority of these prisoners from bailing out from the system leading them to rot away in unbearable and hot conditions for months on end. The judiciary system in India is too backed up to have a hearing for them and allow for their release.

All these experiences have forced me to examine my own privilege and the issues that need to be dealt with in India.

Social Design for Education

At the start of the DSI journey I came armed with a question. **How do we improve India's education system and student outcomes?**

The reason was that while the Indian Education System has always struggled with meeting its goals (for instance, **in 2016 UNICEF in its educational report said that India is fifty years behind in achieving its educational goals***) the pandemic has had far worse consequences for underprivileged communities, especially in economically weaker countries.

During my research I found that each year of education loss can lead to 9-15 years of affected outcomes (this includes economic and learning outcomes)**. The pandemic itself is a great source of this information. Children from underprivileged communities have struggled to access education during the pandemic.

All government primary schools in India were shut for over 18 months during the pandemic on the orders of the central government and the learning losses have been substantial.***



Manash Pratim Gohain / TNN / Updated: Sep 6, 2016. "India 50 Years behind on Education Goals, Says UN Report - Times of India." The Times of India, timesofindia.indiatimes.com/india-50-years-behind-on-education-goals-says-un-report/articleshow/54022425.cms. Accessed 14 July 2023.* UNICEF, www.unicef.org/media/111621/file/TheStateoftheGlobalEducationCrisis.pdf.pdf. Accessed 14 July 2023.** "Millions of Indian Kids Have Been out of School for 18 Months. the Break Threatens Decades of Progress." The Washington Post, 4 Oct. 2021, www.washingtonpost.com/world/2021/10/02/coronavirus-india-school-closures/.***

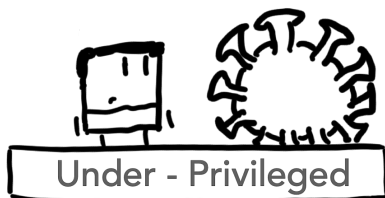
1,98,872 (41.55%) prisoners are **educated below class 10th level.**

1,32,729 (27.37%) prison inmates are **illiterate.**



The gap in educational outcomes between the privileged and the underprivileged has been accentuated by the pandemic.

UNICEF warns that the COVID-19 scale of education loss is "nearly insurmountable"**.



1,03,036 (21.52%) studied **above class 10 but below graduate level.***

Education was supposed to continue through online classes and informative TV shows, but poor internet access, lack of computers, and television sets in the majority of households has contributed to a period of almost no learning for millions of children in India.

Based on the statistics above, **which communities will suffer the most? Which communities will further have poor learning and life outcomes?**

And are interventions being designed to accommodate these communities and their new post pandemic realities?

The question that I did end up addressing was one of representation. I looked at statistics from the education sector, reports from different independent bodies, academic papers, prison statistics, etc. And they all pointed me to the **abysmal representation of socio-religious groups in India.** But more on this later in the paper!

How did I get here?
The question went from...

How do we create a vision for equity in Indian Education by 2047?



Who needs to be there to create this vision?



How do we get these people to create a vision for the country?



Who is missing from the table?

"India's 27.37 per Cent Prison Inmates 'Illiterate', over 5,600 Techies: Govt Data." The Economic Times, economictimes.indiatimes.com/news/politics-and-nation/indias-27-37-per-cent-prison-inmates-illiterate-over-5600-techies-govt-data/articleshow/80908764.cms?from=mdr. Accessed 14 July 2023.*

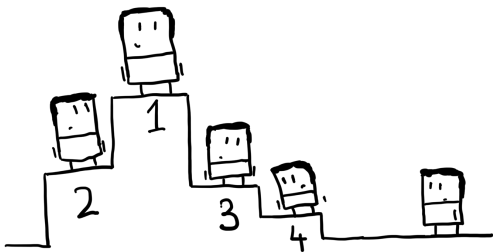
"Covid:19 Scale of Education Loss 'Nearly Insurmountable', Warns Unicef." UNICEF, www.unicef.org/press-releases/covid19-scale-education-loss-nearly-insurmountable-warns-unicef. Accessed 14 July 2023.**

What is the social issue?

The Indian Caste System

“The hierarchy of caste is not about feelings or morality. It is about **power** – which groups have it and which do not. It is about **resources** – which caste is seen as worthy of them and which are not, who gets to acquire and control and who does not. It is about **respect, authority, and assumptions of competence** – who is accorded these and who is not.”

– Isabel Wilkerson
Page 17, *Caste* (2020)



In India there are four major castes and then there are other minority socio-religious groups. At the dawn of India as a country its founding fathers decided to ban caste based discrimination and enshrined it in the constitution. This was done to ensure that caste based discrimination didn't affect the newly founded nation of India. The lower castes are denied access to certain privileges enjoyed by the higher castes.

For instance, it is frowned upon the upper castes to marry into or marry from the lower castes. In some households the upper castes and lower castes are served using different utensils and are required to eat in separate areas of a building.

There is a belief that the lower castes are associated with work that is unhygienic and so are considered dirty or 'untouchable'. While this is not true anymore, it's still an association a large number of people have.

There is a recognition of the impact that this caste related bias has had on economic opportunities, social opportunities, etc. for the lower caste communities. And the reservation/quota system would allow (in theory) for the lower caste communities to catch up with their upper caste peers.

Thus the **Scheduled Caste** ("SC") and **Scheduled Tribe** ("ST") communities were defined and enshrined

in the constitution. The rest of the Indian population fell into the 'General Category' ("GC").

This led to an interesting perception of caste and class in Indian society. While the notion of caste based discrimination and discussions around caste were being looked down upon by the upper castes of India, at the same time the blame for the quota system in Indian education, public sector jobs, and other such sectors was being put on the SC and ST communities in India.

The **reservation/quota system** in India is a policy that reserves seats in educational institutions, government jobs, and political representation for historically marginalized groups. It aims to provide opportunities and address social inequality faced by Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), and economically weaker sections. The percentage of reservation varies for each category, and while the system is intended to promote inclusivity, it continues to be a controversial topic of debate and discussion.

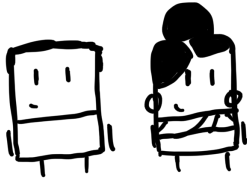
The Social Issue I am working towards is to expedite the Indian Education system and to provide every Indian child with access to an excellent and equitable education system and healthy alternatives, should they or their caregivers choose to access it.

How Caste manifests in India

Population*

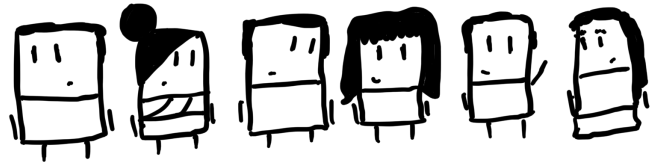
Hindu High Caste

21% of India's Population.



The Rest

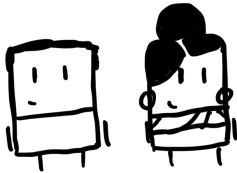
79% of India's Population.



Wealth**

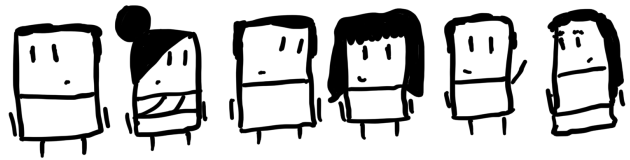
Hindu High Caste

41% of India's Wealth.



The Rest

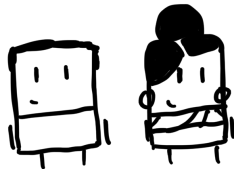
59% of India's Wealth.



Media***

Hindu High Caste

88% of India's Media.



The Rest

12% of India's Media.



Prisons****

Hindu

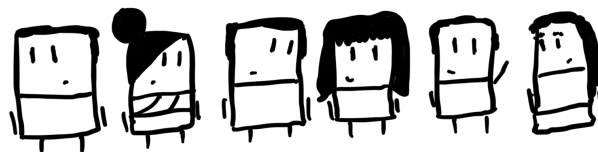
High Caste

7.9% of India's Prisoners.



The Rest

92.1% of India's Prisoners.



"Data & Resource." Home | Government of India, censusindia.gov.in/census.website/. *

Tagade, Nitin, et al. "Wealth Ownership and Inequality in India: A Socio-Religious Analysis." Journal of Social Inclusion Studies, vol. 4, no. 2, 2018, pp. 196-213, <https://doi.org/10.1177/2394481118808107>. **

"Who Tells Our Stories Matters: Representation of Marginalised Caste Groups in Indian Media." Who Tells Our Stories Matters: Representation of Marginalised Caste Groups in Indian Media | Oxfam India, www.oxfamindia.org/knowledgehub/workingpaper/who-tells-our-stories-matters-representation-marginalised-caste-groups-indian-media. ***

National Crime Records Bureau, ncrb.gov.in/sites/default/files/ADSI-2021/ADSI_2021_FULL_REPORT.pdf. ****

Act 2

The Process

How do we begin to solve a puzzle?

We can do so by beginning to put the pieces together and noticing the patterns. The first step to solving this puzzle was understanding what the problem was.

I began by conducting **Secondary Research** to understand the various aspects of the issue at hand. This involved finding analysis of the Indian Education System, academic papers highlighting the impact of the pandemic on the Indian subcontinent (especially those related to Education), economic reports from the Indian region, analysis of socio-economic factors that affect education, analysis of socio-religious groups and their diversity, etc.

Secondary Research was an exhausting and sometimes unrewarding experience as it always felt like there were too many facets to consider. For instance, Education has deep connections to many different issues. Nutrition, Parent Education levels, Family Income, etc. Each area of research then has further research associated with it.

There were also mixed reports with regards to the pandemic. Or missing or incomplete data. There are almost no studies on the emotional impact of the pandemic on students and their families. Mostly just economic outcomes related studies.

I pulled open sourced data from various Indian ministries (Education, Prison, Health, etc.) and also requested access for various scholarly resources from different academic sources.

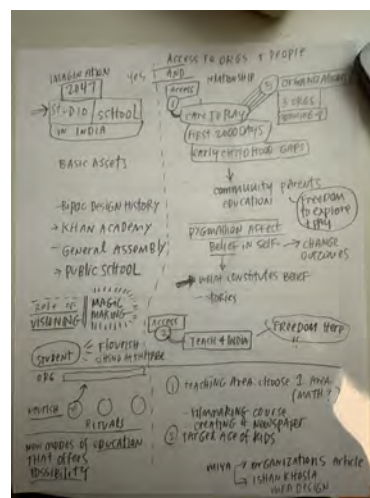
The **Mapping Process** therefore helped in bringing some focus and clarity to the research. After a round of Secondary Research I would use the Mapping Process (facilitated by thesis faculty at DSI as well as on my own) to begin putting the pieces together. It helped me step back to try and see the bigger picture (the bigger picture being the larger systemic pattern behind education related outcomes in India) but also zoom in to understand areas of opportunity and further questions for exploration.

Through all of this I also had **regular discussions** with a trusted group of people in order to stay connected to the Indian context and also to discuss my research and to further find out if there is any relevant data or insight they might have regarding what I was looking for. Sometimes through these channels I was able to access interesting research insights and papers that I might have otherwise not known about.

All of these steps took place non-linearly. I would jump from one to another as and when the context required. The transition was never smooth, and the insights felt hard earned!

(Discovering socio-religious group based inequity in India was, for instance, serendipitous with a chance meeting with Ishita Abha Dhuriya, a community activist, just a few days prior to my full day workshop with my thesis partners!)

On the following pages are some of the snapshots from my Secondary Research catalogue, some of the instances of the Mapping Process I undertook, and some (but not all) of the people I spoke to regularly to help me understand the Indian context a little better.



Notes from a mapping session with my Chair Miya Osaki

Secondary Research

I compiled my Secondary Research in Notion.

It helped me stay organised and quickly access the information I needed at any given time.

Type	Name	Link	Status	Score / 5	Author
Article	Learning losses from COVID-19 could cost tr	https://www.unicef.org/press-	Finished		
Article	Read Global : Article shared by Mari about interv	https://www.readglobal.org	Ready to Start		
Academic Journal	Stats for college enrollments in the USA	https://educationdata.org/coll	Reading		
Article	Article about College Stats in India	https://theprint.in/india/educa	Finished		
Article	Affordable education still out of reach for mc	https://www.hindustantimes.c	Finished		
Article	Only 10% have access to higher education in In	https://timesofindia.indiatime	Finished		
Article	Does your education level affect your health?	https://www.nytimes.com/201	Finished		
Academic Journal	Economic Status and health in childhood : The C	https://pubmed.ncbi.nlm.nih.g	Ready to Start		
Academic Journal	Poverty is Not Just an Indicator: The Relationshi	https://pubmed.ncbi.nlm.nih.g	Ready to Start		
Academic Journal	The relationship between education and health:	https://www.ncbi.nlm.nih.gov/	Ready to Start		
Academic Journal	Why Education Matters to Health: Exploring the	https://societyhealth.vcu.edu/	Ready to Start		
Academic Journal	The influence of education on health: an empiric	https://archpublichealth.biom	Ready to Start		
Academic Journal	The Relationship between Economic Status and	https://www.jstor.org/stable/2	Ready to Start		

Article	India has deficit of 1 million school teachers	https://www.businessstoory.ny	Finished
Article	UNESCO recommendations for Teachers in India	https://www.tatarusts.org/ins	Finished
Article	UNESCO recommendation for open data regardi	https://www.iiep.unesco.org/e	
Article	Covid deepens education divide in India	https://www.weforum.org/lage	
Article	23 facts about the Finnish Education System	https://www.educationcorner/	
Article	Shaheen Mistry's Interview - V.Imp.!	https://www.cfr.org/blog/shah	Finished
Article	Oxfam poverty report India 2022	https://www.oxfamindia.org/pi	
Paper	Network Segregation and the propagation of mli	https://www.nature.com/articl	
Paper	Networks to nowhere: Segregation and Stratifica	https://www.jstor.org/stable/2	
Article	Multidimensional Poverty Index	https://trainingindn.shinyapps.i	Ready to Start
website	The Moth		Ready to Start
website	World Comics India	https://www.worldcomicsindia	Ready to Start
website	Cast Bias comic	https://feminisminindia.com/2	Ready to Start
Article	Indian privileged seven times CO2 emissions vs	https://www.indiaspend.com/l	Ready to Start
Article	3 States want caste included in census - but wh	https://indianexpress.com/arti	Ready to Start
Article	Whitewashing Caste - Miya shared this	https://caravanmagazine.in/hi	Ready to Start
Article	Article about prisons and caste	https://thewire.in/caste/india-	Finished
Article	Social profile of key heads of social media	https://www.millgazette.com/	Reading
Essay Resource	Who tells our stories matters - Oxfam Report	https://jd1ns4m16yuzzo.cloud	

Important books for thesis

- 2960487.pdf 29.86 KB
Paper for Segregation and Stratification in Networks of Information about schools
- ED564606.pdf 97.5KB
The power of the pygmalion effect
- TMR 2022 Caste Report_Final 8mb.pdf 15.9 KB
Oxfam report about the lack of diversity and domination of the hindu high caste in Media.

Project Research

Secondary Research

- Documents and Articles
- Research List

Primary Research

- Stakeholders and Interviews
- Interviews and Notes
- Workshops and Notes

Mapping helped me build a visual reference for my thoughts. I remember during my discussions with my thesis advisors, it was hard for me to nail down my thinking. I used to have regular meetings with MFA DSI Chair Miya Osaki, who urged me to put up a wall of ideas so we could build the necessary connections.

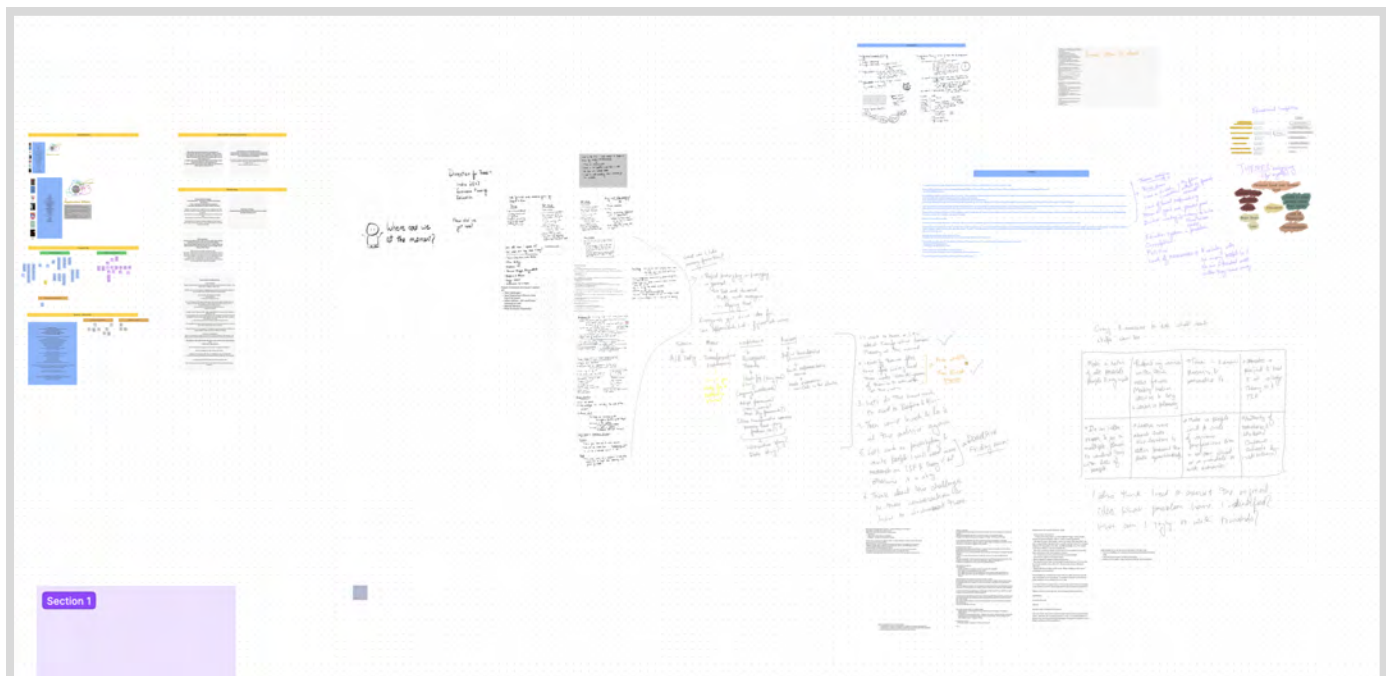
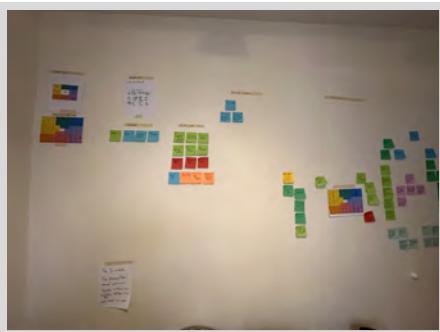
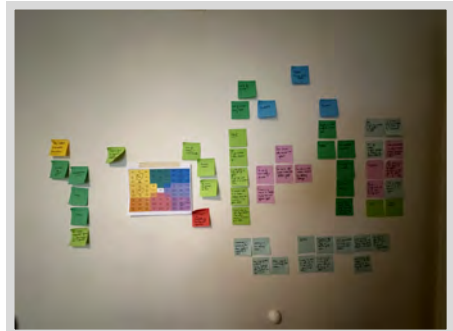
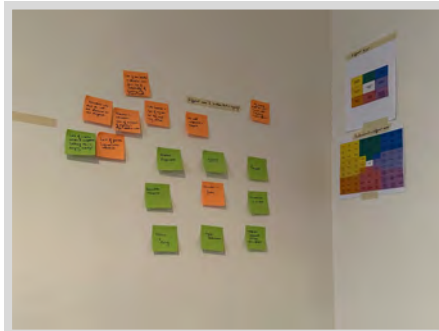
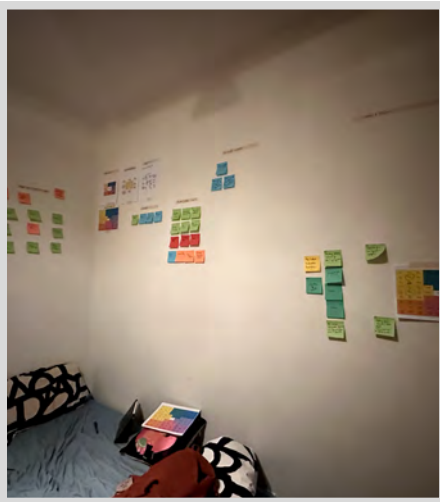
That is precisely what I did and it helped me immensely. Since my entire room became a giant map of my thoughts and the research I was doing, I would frequently find myself staring at some section of the wall as I tried to understand my next steps. This deepened the quality of my research but, more importantly, improved my focus.

Mapping Process

Some of the Mapping work I did to generate insights. When I was struggling to understand the social design process I would look at the mapping.

A small section of the mapping was about what I like and what I would want to do. When I was able to see the connection between what I wanted to do, what I was good at, and what needed to be done, I found synergy in the project.

It was a breath of fresh air to be able to find where my heart lay in all the work that needed to be done and allowed me to enjoy what I was doing more.



Contextual Conversations

I decided to tap into the network of people I happened to have connections with in the development sector and who are still working in the field at the moment. My first point of contact was Tarun Cherkuri, who was the City Manager and my boss during my fellowship years (2013-15) at Teach For India.

Over the years I have counted on him as a mentor and guide and he has helped me with appropriate and well timed feedback. I have also volunteered for his organisation a few times and when he offered an opportunity to work with Care to Play, a conglomerate being led by Indus Action, I welcomed the opportunity eagerly.

With these conversations I was trying to understand what the struggles and challenges of such organisations were on a daily basis and what was the work being done. I was also running my research insights by them, finding new areas of research and exchanging any new practices.



Chris Kollian

Program Lead, Indus Action



Tarun Cherkuri

CEO, Indus Action



Arhan Bezbor

CEO, CollabX



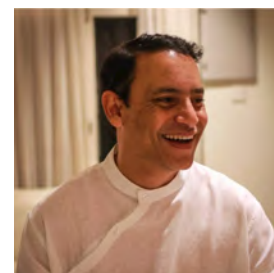
Sudarshana Srinivasan

Program Manager,
Teach to Lead



Mainak Roy

CEO, Simple Education
Foundation



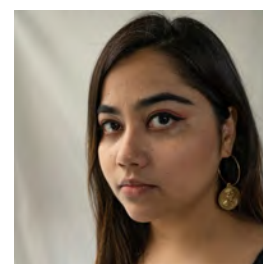
Ameen Haque

Storywallah



Archana Kannan

COO, Indus Action



Ishita Abha Dhuriya

ST Community
Representative and
Activist

Partners - Care to Play

Care to play is a conglomerate composed of five organisations that came together to address the problems of early childhood education and nutrition in the New Delhi region of India. They did so for an International call for pitches from The Lego Network, who were offering One Hundred Million Dollars in funding to organisations tackling early childhood education related issues across the globe.

Pitch for Care to Play

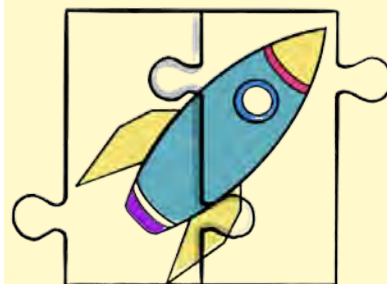
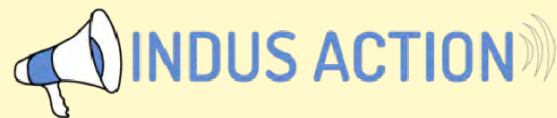
Project Title : Care to Play

Project Description : Care to Play is the collective mission of Indus Action, Saajha, Trickle Up, Rocket Learning and IDinsight for serving 5 million+ vulnerable children in India.

Executive Summary :

Nearly 90% of Indian children are born into families that struggle with substantial poverty. In this stressful economic context, caregivers, including parents and pre-school teachers, are only able to engage for 30 minutes a day (1/4th of desired time) with their 3-6 year olds. As a result, these children lack access to stimulating environments in their early years, leading to opportunity gaps that grow over time, locking them into inter-generational poverty traps.

I joined them as a designer and facilitator in October of 2022 and while their goal was to come together for the workshop I was conducting for them to figure out how to go about addressing this problem. My goal was to get closer to these organisations and see what equity related issues they might be dealing with.



ROCKET LEARNING
Building an Equal Foundation Early

Their Goal : To address the issues of Early Childhood access to nutrition and education.

My Goal : To get closer to development sector organizations in India and understand the issues of equity they are dealing with.

After having conducted a series of workshops for the conglomerate Care to Play I asked myself the question - "Who else needs to be in this room?"

During the workshop I facilitated an activity around creating the system in which these organisations exist. The first part of the activity involved recognising all the stakeholders in the system with whom Care to Play needed to work .

Once we finished this I asked them to discuss and write down the needs of all of the stakeholders.

At the end of the activity I asked them to share what they had written down. While the team members shared the insights generated from the different stakeholders, all the leaders collectively forgot to write down and discuss the needs of the children.

This was an aha moment for me as I recognised that even though all of these leaders were exceptional in their ability to solve problems related to their expertise, collectively they had developed a blindspot to their own privilege.

It struck me that I was sitting in a room with a certain kind of privilege. Whether that privilege was exceptional achievements in education or holding important positions in different industries in the past. All of the participants had access to pathways that led them to secure and prosperous futures.

This led me to ask: Were there any parent representatives in the room? Or someone from the community? The answer was a resounding no.

I began asking a different set of questions after this workshop. **Who isn't in the room? And why?**

It was a problem that has always been present in India but something that I couldn't see because of both my background as a privileged member of Indian society and the fact that I was a part of the same group of people. These people were my ex-colleagues or friends or acquaintances with similar educational backgrounds and similar experiences in the education and development sector.

For my Masters I stepped out to the US and to MFA Design for Social Innovation where conversations around equity are the norm and not the exception. One of the first things I learnt at DSI is to ask the question **'Who is not at the table?'**



The stakeholders that Care to Play came up with during the workshop :

1. Parents
2. Children
3. Teachers
4. Anganwadi Workers (Government ground workers)
5. The Government
6. Funders.

The people in red were absent from the discussion taking place.



Care to Play creating the system they operate in. I asked the participants to use materials like chart paper, clay, post its, and other similar items to simulate the systems and relationships they observe and navigate in their work.

This question repeated over and over during our workshops, our classes, and our projects led me to begin asking this question in all facets of my life.

It's important to keep asking this question in all facets of our lives. I have found that most of my friends and colleagues often invite diversity in our groups, our inclusion criteria are based on familiarity. These issues then come up when there is a need for diversity and other perspectives.

This is an especially acute problem in the development and social sectors where it is imperative to have multiple perspectives, including those of the very people who you are designing interventions for.

The Indian context is unique and far more complex than most other countries. India is home to the (soon to be) world's largest population and has a lot of diversity in terms of culture, religion, languages, economic disparity, regional diversity, etc.

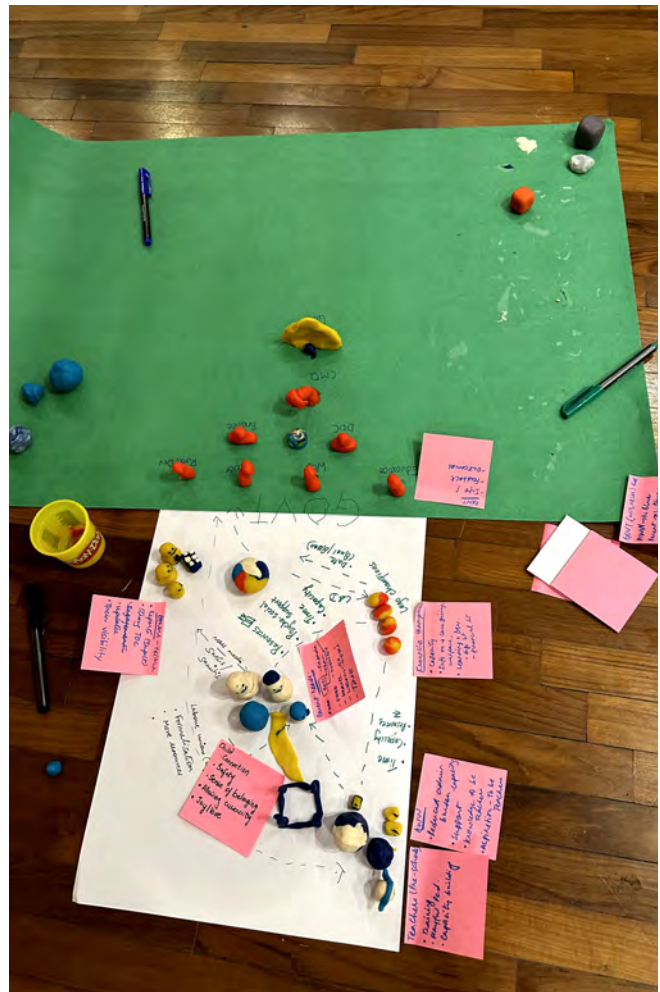
During the January workshop I first asked the question - **Who else needs to be here?**

I began searching for material related to representation and for my research connected with a community representative named Ishita Abha Dhuriya, a photographer and community (ST) representative and activist. Ishita has been working for the last few years to use her craft as a photographer to highlight the lives of community members and the issues they face on a daily basis. Ishita shared insights into problems regarding the community which I captured through a series of interviews with her, but also through the links and articles she shared.

She spoke about the inadequate representation of community members in spheres like education, politics, the media, and how this issue marginalises the issues faced by the community members.



Workshop in progress

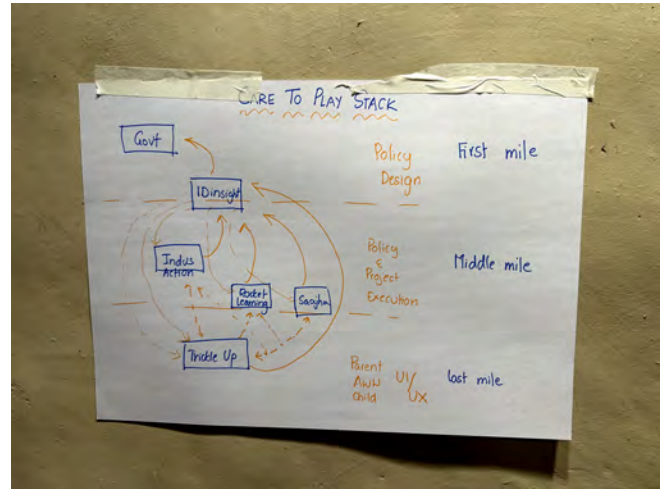


The System in question.





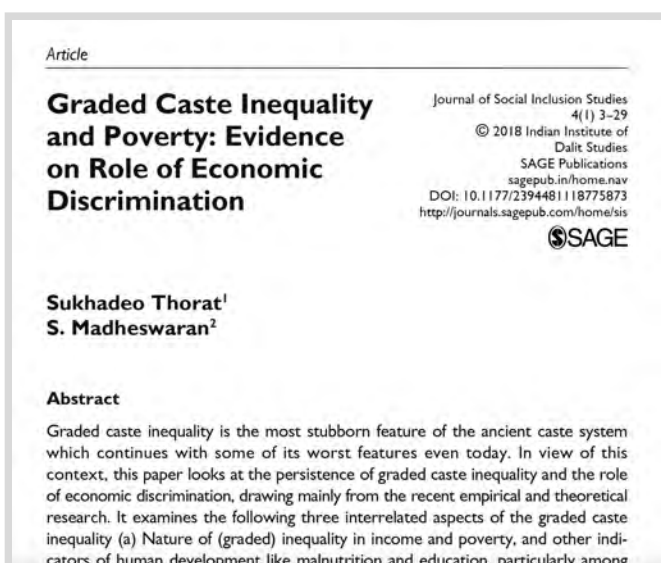
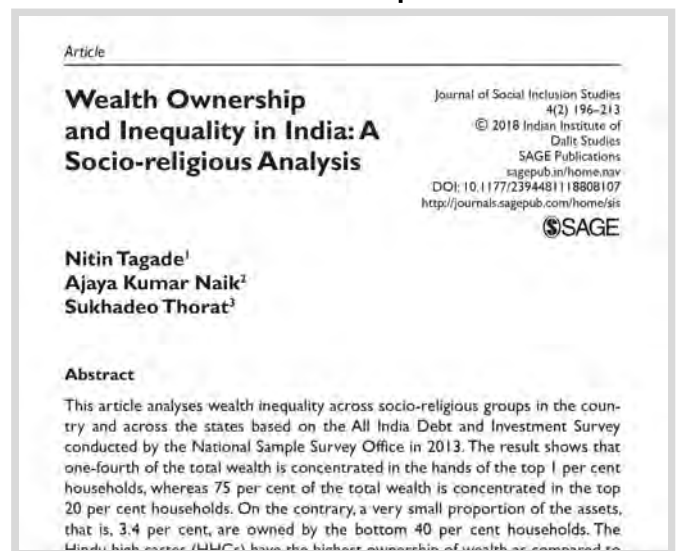
Participants presenting service blueprints they designed as small teams.



A service design blueprint from the workshop



Articles and reports regarding caste based inequalities in India



1. Adisheshaiah, Malcolm. "Caste and Castelessness : Towards a Biography of the 'General Category.'" Economic and Political Weekly, 4 Apr. 2013, www.epw.in/journal/2013/15/perspectives/caste-and-castelessness.html.
2. Tagade, Nitin, et al. "Wealth Ownership and Inequality in India: A Socio-Religious Analysis." Journal of Social Inclusion Studies, vol. 4, no. 2, 2018, pp. 196–213, <https://doi.org/10.1177/2394481118808107>.
3. Thorat, Sukhadeo, and S. Madheswaran. "Graded Caste Inequality and Poverty: Evidence on Role of Economic Discrimination." Journal of Social Inclusion Studies, vol. 4, no. 1, 2018, pp. 3–29, <https://doi.org/10.1177/2394481118775873>.
4. "Who Tells Our Stories Matters: Representation of Marginalised Caste Groups in Indian Media." Who Tells Our Stories Matters: Representation of Marginalised Caste Groups in Indian Media | Oxfam India, www.oxfamindia.org/knowledgehub/workingpaper/who-tells-our-stories-matters-representation-marginalised-caste-groups-indian-media.

Conversations with some stakeholders



Mainak Roy, CEO
Simple Education Foundation



Sudarshana Srinivasan,
Program Manager at Reach to Teach

I was surprised to learn this information, but when I spoke to some members of the SC and ST communities of India and gathered secondary data I realised that being ignored and underrepresented is an everyday reality for them. No matter where I looked for information, I found more information supporting how the upper caste Hindus were in control of the majority of assets in India.

I decided to bring this conversation to leaders in the development sector in India, and I was surprised again when they spoke about how there are no conversations around this topic at the moment. There are conversations around Gender Diversity in the workspace and communication around sexual preferences and identity (thanks to conversations taking place around the same topics in the West), but no conversations around caste or caste inequality.

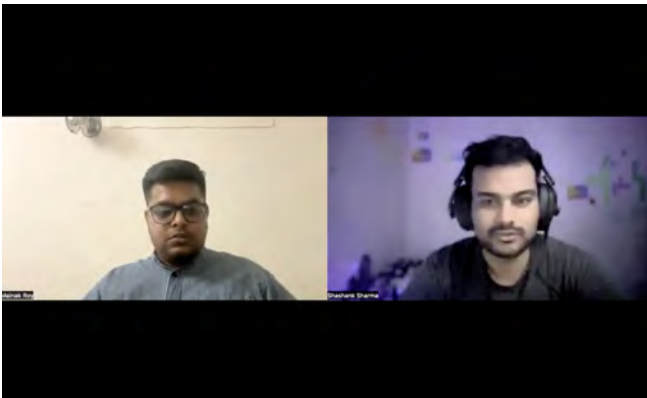
I spoke to **Mainak Roy** and **Sudarshana Srinivasan** about this matter. Both of them have 10+ years of experience each in the Indian education sector and operate in multiple states alongside ministries and government educational institutions.

Mainak pointed out that bias is present in our classroom and that the systems through which non-profits exist are pro-bias.

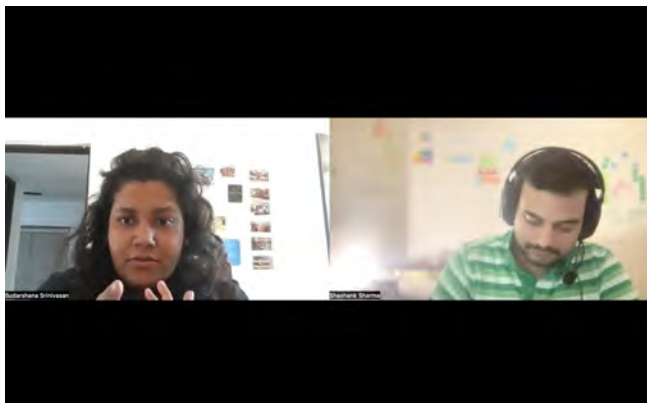
- Bias present in our classrooms.
- Successful entrepreneurs and pitches have markers of heritage in their pitches. (Ivy league background or other elitist institutional background)
- Organisations like Draper Richard Kaplan (D.R.K.) almost exclusively fund Harvard graduates in India.
- To have a seat at the table you need resources.

Sudarshana echoed similar points and said the following :

- Privilege is seldom acknowledged in the development sector.
- Saviour complex and associated language to describe beneficiaries - "Dontrodden"
- Fear that there is going to be a pushback from the privileged.
- Ignorance of these issues is leading to apathy. Social sciences aren't being given enough importance in India.
- Use of language among development sector professionals that is violent and oppressive and looks down upon the other.



Conversation with Mainak Roy



Conversation with Sudarshana Srinivasan

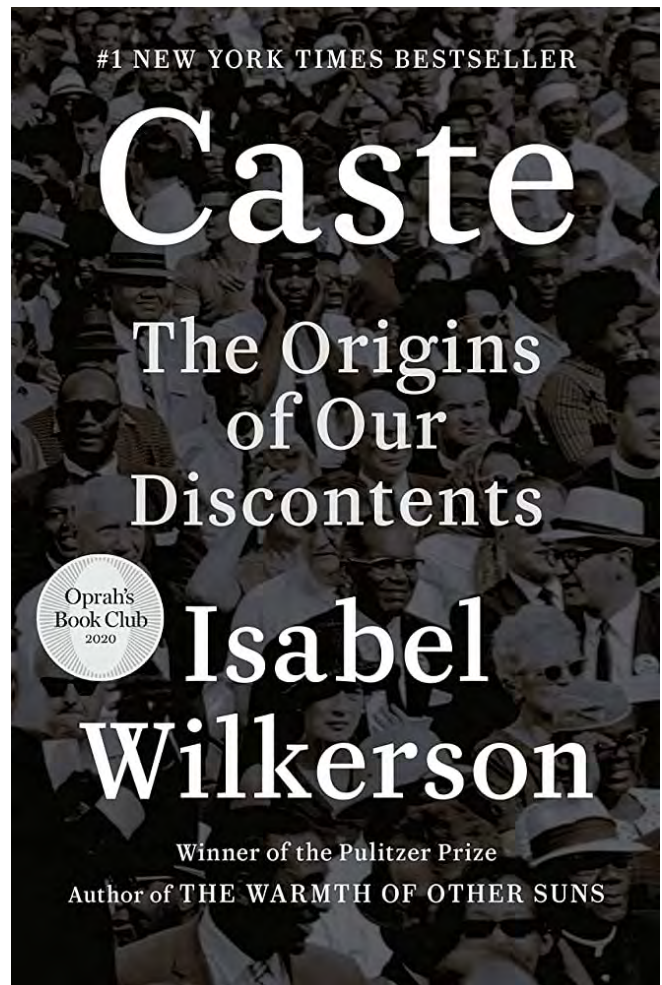
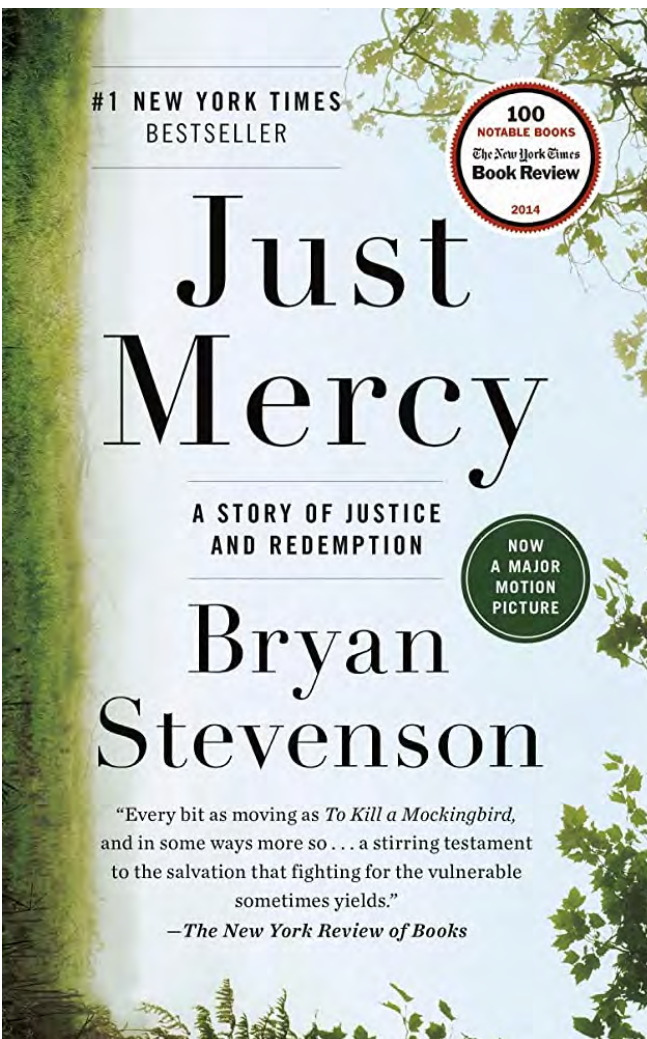
**What is the issue,
really?**

Who gets access and who doesn't?

The social issue is one of access. Who gets to access resources in India? And why? **Isabel Wilkerson** in her Pulitzer prize winning book *Caste*** talks about how caste is a way to define hierarchies to justify who gets the right to access resources. Furthermore in her book she talks about how caste, like language, is learned from those around us. As we grow up and get older, we continue to absorb social constructs like caste that we have created.

“Caste is insidious and therefore powerful because it is not hatred, it is not necessarily personal. It is the worn grooves of comforting routines and unthinking expectations, patterns of a social order that have been in place for so long that it looks like the natural order of things.”

— Isabel Wilkerson



“Each of us is more than the worst thing we have ever done.”

— Bryan Stevenson

In his seminal book *Just Mercy****, **Bryan Stevenson** talks about how African Americans were classified to be 3/5th humans in the eyes of the law. And that it took many years of effort, dedication and lives sacrificed to change that narrative. But the narrative of race divide (or as Isabel Wilkerson points out, a caste divide) still holds up in the United States.

*Similarly in India it is believed that the lower caste communities are born out of the feet of god while the upper caste are born out of the head. Since the lower caste are born from the feet they are assigned to all the activities that are considered dirty, like sewage cleaning, trash collection, etc. Such narratives are still perpetuated in India and we don't have enough conversations around these topics.

“What Is India's Caste System?” BBC News, 19 June 2019, www.bbc.com/news/world-asia-india-35650616.*

Wilkerson, Isabel. *Caste: The Origins of Our Discontents*. Random House, 2023.**

Stevenson, Bryan. *Just Mercy: A Story of Justice and Redemption*. Spiegel & Grau, 2015.***

There is also a gross underrepresentation of the minority communities in Indian media. Media is consumed by all and provides narratives that then drive public dialogue. The Media is an important institution and tool for change. India being the largest democracy in the world means that India needs to have representation in its media to ensure that all voices are heard equally and with impartiality.

However the reality is that there is a massive underrepresentation of the minority socio-religious groups in the Media in India and a massive overrepresentation of the upper castes Hindus. While SC and ST communities are underrepresented, what is more disturbing is the underrepresentation of OBC (Other Backward Classes) which represent about 45% of the Indian population. For context, the High Caste Hindu population only represents about 21% of the Indian population.

A response could be addressing educational and economic vulnerabilities of the groups that have been marginalised by the system. If marginalised groups have increased representation, then they will be able to break into structures of power or create their own. For instance, the LGBTQ+ movement has led to increased representation for its members and helped address a number of issues regarding discrimination.

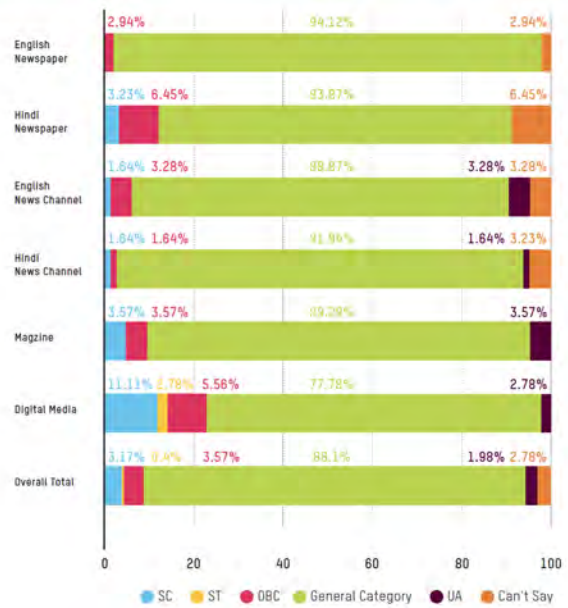
*Even though caste based discrimination had been banned in India, caste discrimination continued. Also since the SC and ST communities comprise a small portion of the Indian population (SC - 16.6% and ST 8.6% [Source : Indian Census Survey 2011]) it seemed easy to blame the small population of the SC and ST community for the continuation of the caste system in India's systems.

The reason for this blame was that the reservation system was being used to reserve jobs and seats in educational institutions for the lower caste communities. This blame was largely pinned on these communities by the privileged upper caste members who now had to compete for fewer government jobs and educational institutions seats.

So the privileged were enraged that now they had less privilege than before. Frequent calls to ban the quota system in place of the 'meritocratic' system continued.

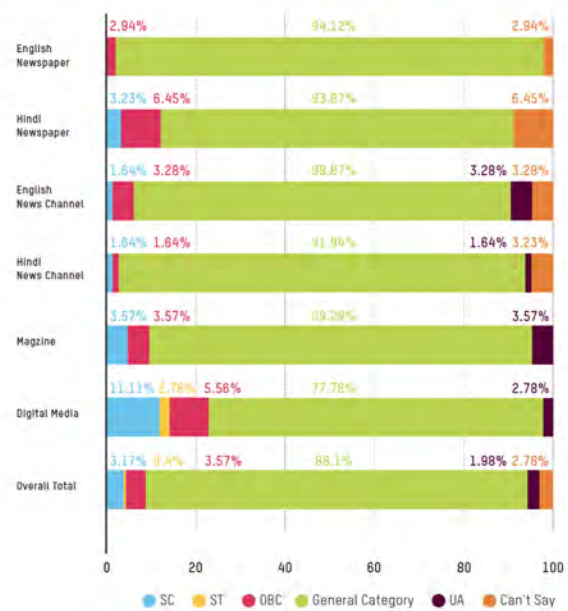
Adisheshaiah, Malcolm. "Caste and Castelessness : Towards a Biography of the 'General Category.'" Economic and Political Weekly, 4 Apr. 2013, www.epw.in/journal/2013/15/perspectives/caste-and-castelessness.html.*

CASTE REPRESENTATION AMONG THE EDITORS AND PROPRIETORS OF THE ALL MEDIA 2021-2022.



Caste representation in India Media
Source : Oxfam India

CASTE REPRESENTATION AMONG THE EDITORS AND PROPRIETORS OF THE ALL MEDIA 2021-2022.



Things began to take a turn for the better when the Mandal commission of 1990 came to define the OBC category - Other Backward Classes.

The Mandal Commission recognised that the economic advantage accrued by the higher castes in India doesn't benefit all the castes that do not belong to the SC and ST category. There are hundreds of caste divisions in India, but there are four broad caste categories that are then further subdivided into more castes based on region and other hierarchies.

The Mandal Commission aimed to compensate these underprivileged communities by recognising them and therefore the category called OBC was created. This led to the first instance where the majority of the country (over 50% of the Indian population) belonged to the so called minority caste and communities. This was an important moment as the Upper Caste Hindus could not hide in the 'General Category' anymore.

Post-1990 there have been various studies conducted to understand the composition of the General Category and it became evident to the people of India through these studies that there is a massive overrepresentation of the upper caste Hindus in wealth distribution, educational outcomes, media, among other things. Let us look at the chart below and the indicators it shows.

Table 4. Indicators of Inequality Across Socio-religious Groups in India

Indicators	ST	SC	HOBC	HHC	Hindu	Muslim	Rest	All
Top 1%	8.3	4.1	15.2	35.9	24.3	7.0	49.3	25.1
Top 5%	21.3	15.2	36.2	57.9	44.7	28.3	76.6	46.0
Top 10%	33.5	24.6	51.5	71.4	58.5	42.5	85.1	59.3
Top 20%	51.6	42.3	69.9	85.0	74.4	61.6	92.9	74.8
Top 30%	64.1	58.8	81.1	91.6	83.8	73.6	96.0	83.9
Top 40%	74.2	71.3	88.6	95.5	90.0	81.8	97.6	89.9
Top 50%	81.9	81.7	93.3	97.6	94.0	89.0	98.8	93.9
Bottom 50%	18.1	18.3	6.7	2.4	6.0	11.0	1.2	6.1
Bottom 40%	11.0	10.7	3.7	1.2	3.4	6.1	0.5	3.4
Bottom 30%	6.2	5.4	1.7	0.6	1.7	2.8	0.2	1.7
Bottom 20%	2.7	2.3	0.7	0.2	0.7	1.2	0.1	0.7
Bottom 10%	0.6	0.6	0.1	0.0	0.2	0.3	0.0	0.2
Gini ratio	0.65	0.64	0.66	0.72	0.72	0.68	0.72	0.72
Average\$	6.2	6.2	13.0	27.7	14.8	10.0	50.9	15.1

Source: NSSO Debt and Investment Survey, 2013.

Note: It is the average assets ₹ in hundred thousand per households (HH).

This chart is the inequality indicators in India for various Socio-religious groups.

The share of wealth in the hands of the top 1 to top 50% is the highest among HHC's. Whereas the share of wealth in the bottom half of the table is the lowest among HHC's.

The Hindu High Caste hold much more wealth in the top economic groups as compared to the bottom economic groups. This also means that they control assets that are key indicators of power.

HHC only represents about 20% of the Indian population yet they control the most assets in the top 1%

ST - Scheduled Tribe

SC - Scheduled Caste

HOBC - Hindu Other Backward Classes

HHC - Hindu High Caste

"...It took sometime for the realisation to sink in that, with the OBC's too being added to the "reserved category", the general category had now become a euphemism for the upper castes."

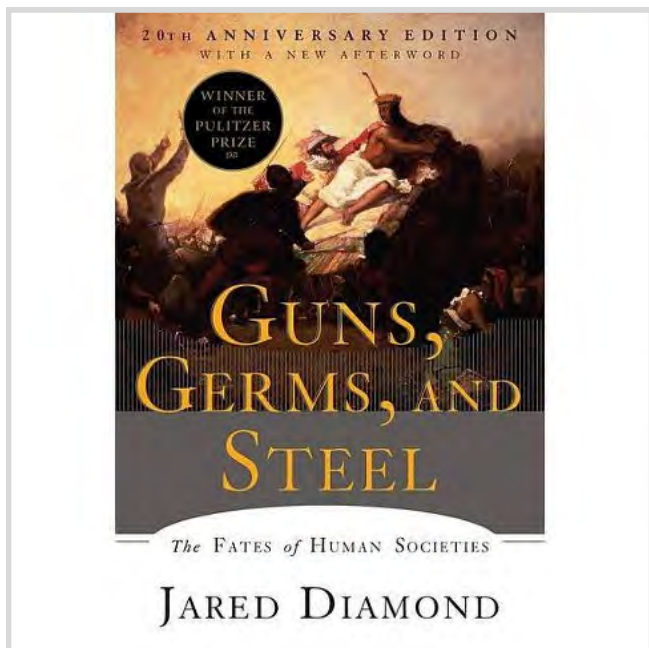
"...central predicament of caste today - its hypervisibility for the so-called lower castes and its invisibility for the so-called upper castes."

— Satish Deshpande

Excerpt from *Caste and Castelessness: Towards a biography of the 'General Category'*

So, are some groups just better than others?

Geographic and Social Determinism



“History followed different courses for different peoples because of differences among peoples' environments, not because of biological differences among peoples themselves.”

— Jared Diamond

Excerpt from *Guns, Germs, and Steel: The Fates of Human Societies*

Geographic determinism and social determinism are two key concepts that have played a crucial role in shaping the course of human history. Geographic determinism, as explained by **Jared Diamond** in his book *Guns, Germs, and Steel*, suggests that geography and environment played a critical role in determining the success of societies.

*The book explores the reasons behind the unequal distribution of power and resources across different societies and continents. Diamond argues that differences in geography and access to domesticable plants and animals played a significant role in determining the course of human history.

So really, it's not that one group/community is better than the other, but it is the situations and circumstances that are out of our control, that lead us there.

Diamond, Jared M. *Guns, Germs and Steel: A Short History of Everybody for the Last 13,000 Years*. Vintage, 2005.*

National Crime Records Bureau, ncrb.gov.in/sites/default/files/ADSI-2021/ADSI_2021_FULL_REPORT.pdf. **

Tagade, Nitin, et al. “Wealth Ownership and Inequality in India: A Socio-Religious Analysis.” *Journal of Social Inclusion Studies*, vol. 4, no. 2, 2018, pp. 196–213, <https://doi.org/10.1177/2394481118808107>.***

In India there are cultural perceptions and stories as to why one is born into either a higher caste family or a lower caste family. These stories are usually based around the idea of karma and past lives and how past actions, good or bad, lead to birth in either an upper caste family or a lower caste family respectively. The average Indian gets so used to growing up with the hierarchy of caste that we don't look at them closely. The larger goal for the nation of India is to shift our gaze back to these daily experiences and then begin dreaming of a new vision for India through better designed and inclusive interventions.

But using this logic we can also argue that years of caste and class discrimination in education systems will also lead to poorer life outcomes. This is something that can be proven with data referenced before in this paper.

**Higher instances of uneducated prisoners in prison.

**Low representation of higher caste Hindus in prison

***Low representation of higher caste Hindus in bottom of the wealth distribution.

While we have access to all this data, how might we demonstrate this in a less academic way and in a more engaging fashion? How do we get people to see such outcomes in action?

Facing Challenges

An initial idea for my thesis project was to have more open and honest conversations around our identities through identity-first language but I was quickly shot down by the community representatives (Ishita Abha Dhuriya and Bhavya Chaudhary) I spoke to because of the danger it presented to the minority communities. I spoke to Ishita in detail about this and she explained the dangers of acknowledging minority identities in public. In India the census survey that is conducted every 10 years does not gather data around caste because there is a belief that if that data is captured then it will be misused by political parties to target and harm members of the minority communities.

*There have been many instances of lynching, rape, and other such crimes committed against minority groups and lower caste members in India without support from the local government or the police. This is an extremely relevant possibility for these underprivileged communities and are on the rise with a right-wing focused political party in the central government.

Key Questions & Thesis Statement

So then the thesis questions became :

How do we show people the privilege they have that they can't see right now?

How can we be gentle while doing so?

How can we be forgiving even when those around us seek to judge?

How do we continue to believe in people?

But **HOW** does one facilitate such a conversation in a gentle and safe fashion?

The idea of using **games** to facilitate these conversations came to me as an idea.

I decided to test this during my prototyping stage. This leads me to my thesis statement.

I am creating a gaming experience

with Care To Play

to achieve an understanding of how privilege develops overtime in communities and their effects.

On February 21, 2023, Seattle, WA became the first U.S. jurisdiction to add caste to its list of categories protected against discrimination. This law defines “caste” as a social structure mostly associated with South Asian communities, many of whom live and work in Seattle. Conversations regarding how caste is intrinsically linked to social, cultural and economic capital, is not a point of discussion in India. This is problematic because our systems have made it so critical to defining life outcomes.

These are the conversations that need to be facilitated. Without the necessary conversation we will continue to perpetuate the behaviours from our past. My Theory of Change shows that we need to facilitate such conversations in order for better outcomes.

That is the primary way to then begin designing interventions for social innovation that are not just inclusive but compensate for the years of neglect and underrepresentation.

*The SC (Scheduled Caste) average value of wealth is almost six times less than that of a HC (High Caste) household and two times less than an OBC (Other Backward Classes) household. The OBC owns more than SC, but their average wealth is twice less than that of a HC household. Thus, the graded inequality (Some castes are considered to be higher, while some are considered lower than others) which is the core feature of caste inequality has not dissipated despite the constitutional guarantee of equal rights to property to all.

The graded inequality in wealth also brings about inequality in the pattern of occupation that is economic activity from which the workers derive their majority (more than 50%) share of income. In 2012, about 52 per cent people were self-employed farmers and entrepreneurs, while the remaining 48 per cent were casual wage earners without much access to capital assets. The SC depends more on wage labour, about 44 per cent, as compared to 26 per cent for OBC, and 11 per cent by HC.

However, the disparities between HC, OBC and SC in per capita consumption expenditure are not only due to systematic differences in the aforementioned factors which improve income, namely, in ownership of capital assets (land and enterprises), employment and education, but also due to discrimination faced by SC and OBC in accessing these resources.

Thorat, Sukhadeo, and S. Madheswaran. “Graded Caste Inequality and Poverty: Evidence on Role of Economic Discrimination.” *Journal of Social Inclusion Studies*, vol. 4, no. 1, 2018, pp. 3–29, <https://doi.org/10.1177/2394481118775873>.*



People react to the passing of an ordinance to add caste to Seattle’s anti-discrimination laws in the Seattle City Council chambers, on Feb. 21, 2023, in Seattle. Councilmember Kshama Sawant proposed the ordinance. | Photo Credit: AP



Photo Credit: AP



Prototyping Session with my classmates

I conducted a prototyping session with my classmates at DSI during March of 2023. I wanted to assess the effects of lack of information in a particular system. I devised different roles based on the system and stakeholders generated by the 'Care to Play' members during the earlier workshop I conducted with them. Then I assigned different stakeholder roles to my classmates and asked them to figure out how to get their needs met.

For instance, the needs of the parent was for access to well paying jobs and excellent education for their children. The classmate designed to be the parent had to decide which was the priority (better jobs would mean food on the table for their family and more security, or better education for their children, something to ensure their future) and then request it of the government representative.

Only the most pressing need could be addressed at any one instance.

- Each stakeholder had their own needs which were revealed to the players. The players then had to put out their need to their local point of contact.
- For instance, a teacher and a parent could appeal for their needs to the government's local representative but not directly to the government itself.

The Goal - To test how information percolates through the system and who can see the entire system. To initiate discussions around the experience.

There are 5 stakeholders in this testing.

1. Parent

2. Teacher

3. Student

4. Government's local representatives

5. Government

Once the experiment was over I then asked each stakeholder what the problem was based on what the funds were released for. **Then I asked them if their needs were met.**



Prototyping session with my classmates in progress.



The responses were a resounding NO. In a system with limited channels of interaction and information dissemination, it is impossible for other stakeholders to even fully understand the needs of their stakeholders.

The feedback I received was in line with what I was expecting. But it also led me to think about the possibility of creating a method to have stakeholders in front of each other battling different needs. I received feedback about how I could improve the game with more transparency and open communication. This later directly impacted the game design as I decided to go for a more transparent game with Victory points to be able to share information about a stakeholder's status quickly.

The discussion also led me to believe that the gaming experience was a good way to initiate a discussion.

But more on that next!

Act 3

Why games?

Deciding on a game

During the decision phase when it came to the prototype, I was biased towards designing a game to be able to translate this experience. And the reason for this comes from my own history with games.

As a young boy I remember playing video games with my sister, specifically *Road Rash*. While the game itself was violent, I learned how to cooperate with my sister through that game. We still think about that game fondly. I used to drive the bike and she used to hit the other players in the game. It required tight coordination between the two of us and that left a fond memory of games within me.

I have played many wonderful games over the years since. *KOTOR*, *Catan*, *Sid Meir's Civilization*, *Age of Empires*, *Terraforming Mars*, *Game Dev Simulator*, *Kairosoft games*...the list really goes on and on.

Games are a great way to simulate systems and learn about the world we live in.



Knights of the Old Republic
(courtesy Wookieepedia)



Age of Empires



Game Dev Story
(Courtsey Rock, Paper, Shotgun)



The Landlord's Game



Lizzie Magie in 1892
(courtesy Wikipedia)

Source: Wikipedia

"History of Monopoly." Wikipedia, 15 June 2023, en.wikipedia.org/wiki/History_of_Monopoly.*

One story that I often talk about is the history of the game *Monopoly*. *The game of *Monopoly* was created by the American anti-monopolist Lizzie Magie who hoped to explain the single tax theory of Henry George through her creation. It was intended to be an educational tool to illustrate the negative aspects of concentrating land in private monopolies.

*"The history of Monopoly can be traced back to 1903,[1] when American anti-monopolist Lizzie Magie created a game that she hoped would explain the single-tax theory of Henry George. It was intended as an educational tool, to illustrate the negative aspects of concentrating land in private monopolies. She took out a patent in 1904. Her game, The Landlord's Game, was self-published, beginning in 1906.[5]"

The game was initially called the *Landlord's Game* and was self-published beginning in 1906. Maggie created two versions of the game. She wanted to showcase both the monopolised system and the anti-monopoly system. But the game was then modified a few decades later by a man called Charles Darrow who then marketed the game as *Monopoly* and sold the rights of the game to the Parker brothers.

The version of *Monopoly* that we play today was built from the Monopolist set. It is not an educational tool anymore but more similar to the capitalist and economic systems we inhabit. Had the game truly met Lizzie Maggie's vision then we might have more understanding of how monopolistic systems work.

There are many other famous games that are praised for their deep demonstration of complexity and systems.

One of the games that has deeply inspired me is called *Dwarf Fortress*. *Dwarf Fortress* is a complex and highly detailed simulation game that is known for its depth and difficulty. The game simulates the lives of dwarves who are attempting to build and maintain a fortress in a dangerous and unpredictable world.

One of the unique features of *Dwarf Fortress* is its level of detail. The game simulates everything from the geology of the game world to the individual thoughts and emotions of each dwarf. This level of detail makes the game incredibly rich and immersive, but it also makes it difficult to learn and play.

Another unique feature of *Dwarf Fortress* is its difficulty. The game is notoriously challenging, with a steep learning curve and a high level of complexity. This difficulty has made the game popular among hardcore gamers who are looking for a challenging and rewarding experience.

Despite its complexity, *Dwarf Fortress* has a dedicated fanbase who have created mods, tools, and guides in order to help others learn and play the game. The game has also inspired a number of other games, including *RimWorld* and *Gnomoria*, which build on the simulation and management aspects of *Dwarf Fortress*.

This level of difficulty forces players to understand the larger forces at play, not just their own direct actions and its impact. The systems can also interact with each other in surprising ways, something that I wanted to incorporate into my game design.

Tarn Adams is a game designer, programmer, and artist who is best known for creating the game *Dwarf Fortress*. Along with his brother Zach, Tarn founded the company Bay 12 Games, which is responsible for the development of *Dwarf Fortress*.



Dwarf Fortress
(image courtesy eXplorminate)



Dwarf Fortress
(image courtesy eXputer)

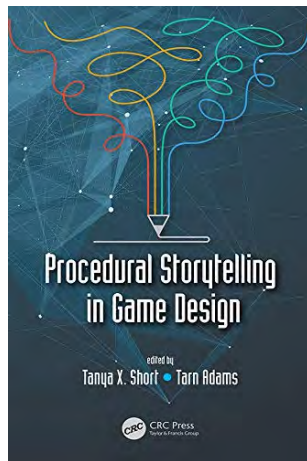
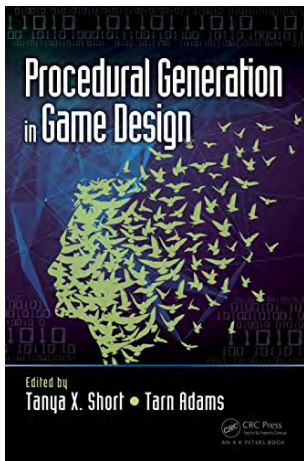
Tarn Adams has also written several books on game design and development, including **Procedural Generation in Game Design* and ***Procedural Storytelling in Game Design*.

These books provide insights into the development process behind *Dwarf Fortress*, as well as advice for aspiring game designers and programmers. During the process I consulted one of the books Tarn Adams wrote on generative and emergent storytelling.

Emergent storytelling in games is the idea that by providing players with a set of systems, they can make decisions that lead to new and novel stories emerging as a consequence. This approach to storytelling is different from the more linear experiences of games designed to tell stories.



Tarn Adams,
Creator of *Dwarf Fortress*



The two books I consulted that are published by Tarn Adams.



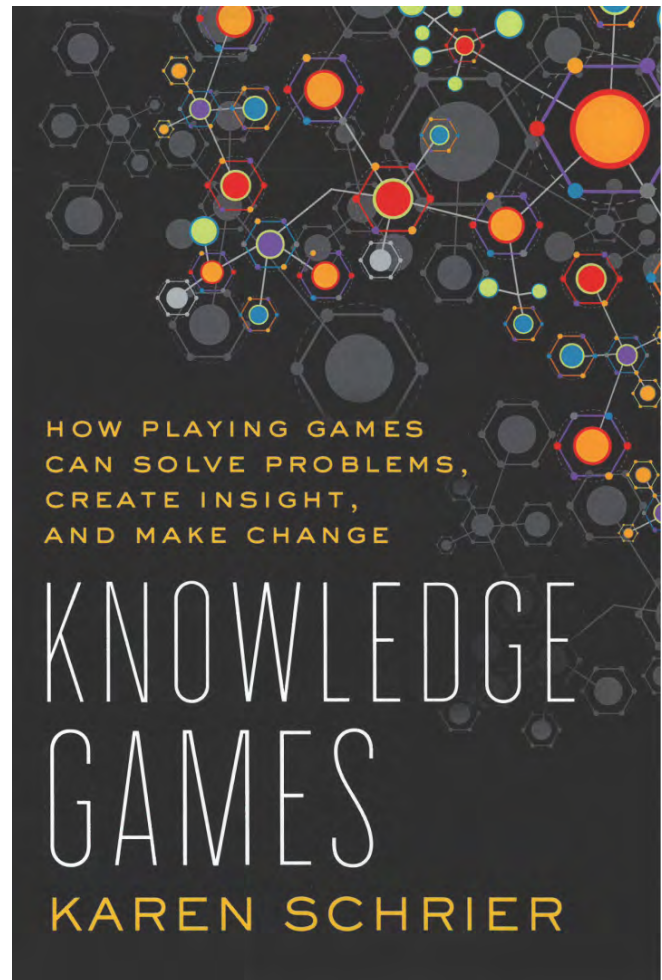
A screenshot of my playthrough of *RimWorld*

This approach to storytelling is becoming increasingly popular in game design, as it allows for a more immersive and engaging experience for players.

Overall, emergent storytelling in games provides players with a more dynamic and personalised experience, allowing them to shape the narratives that emerge from the game world.

For instance, if you had access to educational resources early in your life - good access to teachers, school, nutrition, etc, then you might have much better learning outcomes over the course of your life. But if you didn't have the right foundational knowledge provided to you then you will struggle to catch up.

**Knowledge Games* is a book written by Karen Schrier that explores the intersection between games and learning. The book provides a historical perspective on the use of games for learning and traces the development of educational games from the earliest forms of board games to contemporary video games. One of the main themes of the book is the idea that games have the potential to engage learners in ways that traditional classroom instruction often fails to do.



"Games have the potential to engage learners in ways that traditional classroom instruction often fails to do."

— Karen Schrier

Excerpt from *Knowledge Games*

Schrier argues that games can be particularly effective in engaging students who may struggle with traditional teaching methods or who may be disengaged from the learning process. This is an important point, **as it highlights the potential of games to help address the educational inequities that exist in many educational systems.**

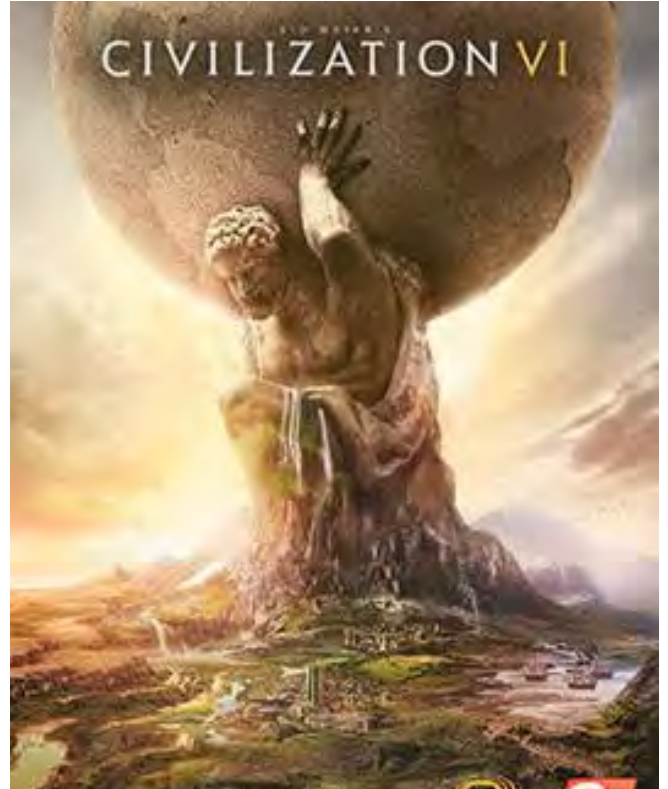
My inspiration included games from two categories : **Grand Strategy Games** and **Systemic Games**. Grand Strategy Games are a genre of strategy video games that typically cover a long historical period, often centuries or millennia. These games allow players to exercise control over large empires or nations, with a focus on managing various aspects such as diplomacy, warfare, trade, and internal politics. Grand Strategy games often involve complex mechanics and require strategic planning and decision-making skills.



Europa Universalis IV



Crusader Kings 3



Civilization VI

Here are a few examples of grand strategy games:

- **Europa Universalis IV**
- **Crusader Kings 3**
- **Civilization VI**

Systemic games are games that simulate complex systems and allow players to interact with those systems in a meaningful way. They are designed to model real-world phenomena, such as ecosystems, social structures, or economic systems, and allow players to explore these systems through gameplay.

Systemic games are often used in education and training to help players develop a deeper understanding of the systems they are modeling.

Here are some examples of Systemic Games:

- **Pandemic**
- **SimCity**
- **Spent**



Pandemic



Sim City

And so the idea of Perspective came to be!

Perspective

The game is loosely inspired by Geographic Determinism which is part of the more modern explanations of how our current forms of civilisations have developed. Perspective tries to provide a counter narrative through a game experience followed by a discussion around what was observed. The concepts presented in *Guns, Germs, and Steel* can be challenging to teach in traditional classroom settings.

This is where my project, *Perspective: A Social Game of Inequities*, comes into play. The game simulates a social hierarchy where players (professionals from the development sector, teachers, and students) create a narrative of their kingdom and begin the game trying to capture as much of the land as possible. Players have to navigate through the game, making choices and interacting with each other, to achieve their objectives.

Perspective helps players to :

- Gain a deeper understanding of the concepts presented in *Guns, Germs, and Steel*
- They can see how **differences in geography**, such as access to natural resources, and technological advancements can **impact a society's development** and ability to grow.
- The game can also help players **understand** the **complex** and **multifaceted nature** of **privilege** and **power** in society.
- They can also **experience** the challenges faced by those who are **underprivileged**, to **understand** the **impact of systemic inequalities**.
- By using the **game as a teaching tool**, teachers and intervention developers can **help students** gain a **better understanding** of the **factors that shape society and history**.
- Foster critical thinking skills and empathy towards those who are different from them.

So by using *Perspectives: A Social Game of Inequities*, we can teach the complex concepts of **geographic determinism** and **social determinism**. The game offers a more engaging and interactive way to understand these concepts and their impact on society and history.



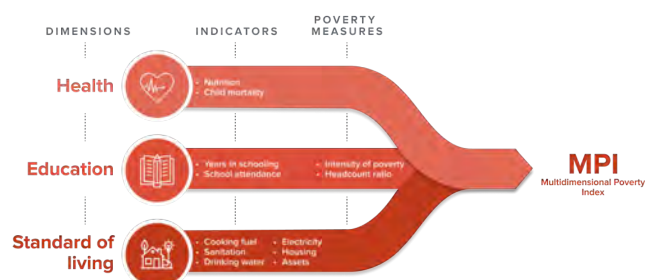
Perspective : A social game of inequities

Another Reason For A Game

The World Bank in October 2022 adopted the Multidimensional Poverty Index to assess poverty in countries and various regions of the world.

***"The Multidimensional Poverty Measure (MPM) seeks to understand poverty beyond monetary deprivations (which remain the focal point of the World Bank's monitoring of global poverty) by including access to education and basic infrastructure along with the monetary headcount ratio at the \$2.15 international poverty line."**

A systemic game would be best suited to accommodate all these elements for an adequate simulation. It would help demonstrate how these different parameters interact with each other and what are the different unique experiences it can create through those interactions.



Multidimensional Poverty Index

Using Catan as my initial platform

I am an avid player of the board game *Catan*. I have been playing this game fairly regularly for the last few years, even competing at an international level through online events.

Catan, also known as *Settlers of Catan*, is a renowned strategic board game designed by Klaus Teuber. Set in the fictional world of *Catan*, players assume the roles of settlers vying to establish prosperous colonies on the island. Through resource management, clever trading, and careful placement of settlements and roads, players aim to accumulate victory points. These points are earned by constructing settlements and cities, developing infrastructure, and achieving specific goals. With a perfect blend of strategy, negotiation, and chance, *Catan* has captivated players worldwide, offering an immersive and highly replayable gaming experience.

Although *Catan* is a popular and engaging game, it is not without its limitations. One limitation is that the game emphasizes competition over collaboration. Additionally, while the game can teach valuable lessons about resource management and negotiation, it may not be as effective at teaching more complex systems, such as social or political systems. Finally, the game's focus on victory points and winning may not align with the goals of all players, particularly those who are more interested in the process of playing the game rather than winning.

While I have been happy to play *Catan* with friends, I do realise that the nature of competition it creates can be unhealthy. It has a strong emphasis on winning and there is always one emergent winner. I wanted to change this in order to meet the objectives of my own game. I wanted active discussions to take place and I wanted the chance for collaborative play to occur.

Active discussions and collaborative play would be required to simulate more real life scenarios. In the real world, people do need to interact with other groups to carry out trade or exchange services. However, who has the upper hand in such trade also comes from a place of power and privilege. I wanted to be able to incorporate such a dynamic in the game.

Catan was not designed to be played collaboratively or to be able to teach about more complex systems.



Catan
(image courtesy WarGamer)

However its movement mechanic allows for a quick and rapid way to distribute resources. *Catan* is also fairly easy to learn, and so, I decided to use *Catan*'s movement mechanics as a base to engage in further game design.

Some Iterations...

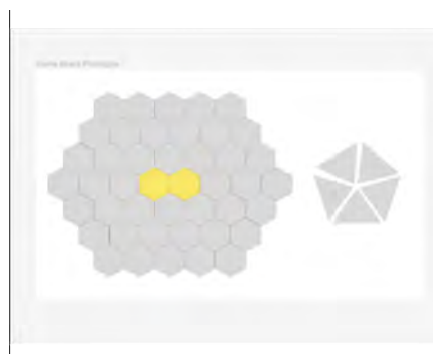
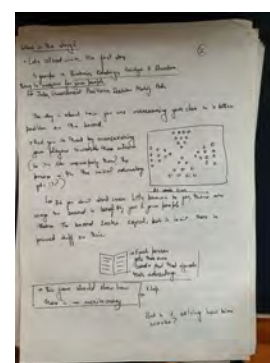
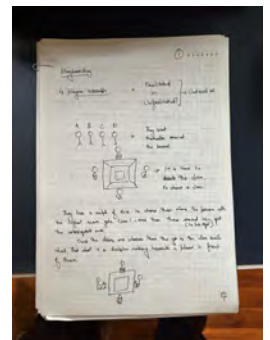
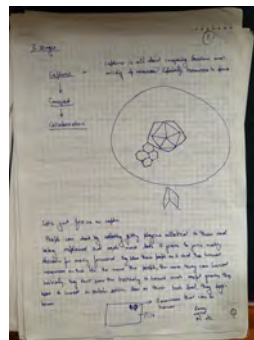
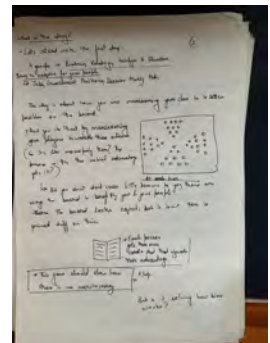
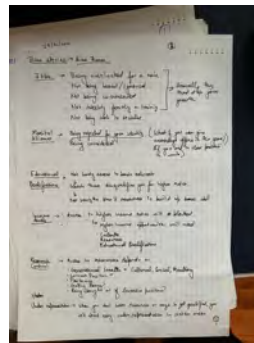
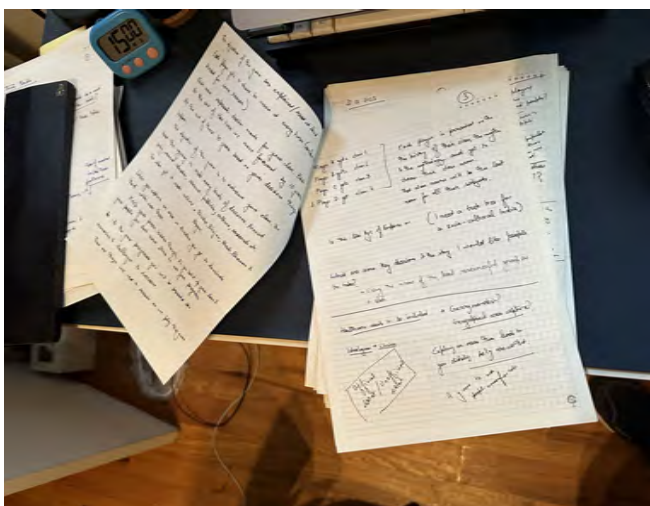
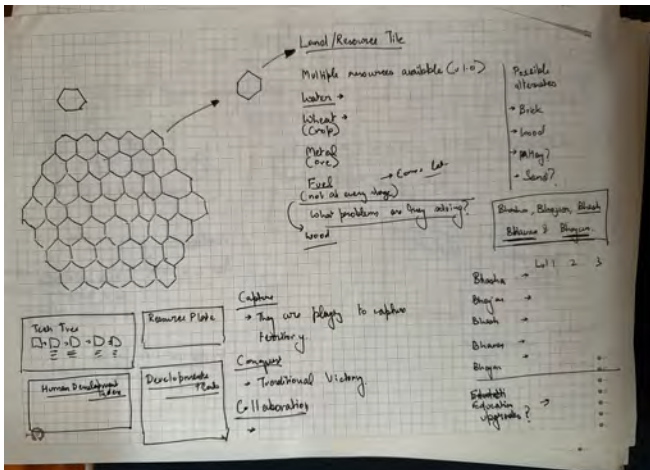
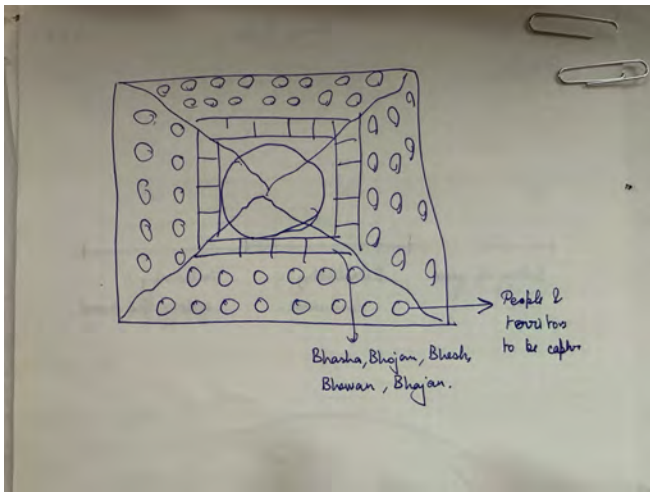
The initial work was making sketches to try and define the experience of the game through storyboarding. The goal was to make it immersive, and give the players an engaging story to participate in. An immersive game would be one where the players are invested in the storyline, the outcomes, and so their actions would automatically be more authentic.

One of the early goals was to create seminal 'moments' in the game that allow a player to fully immerse in the narrative in front of them. I would write about these moments and then plan backwards to design game mechanics or situations that would allow for such moments to take place.

In conversations with Mainak Roy and Sudarshana Srinivasan, they talked about how such moments need to make the players 'uncomfortable' as they sense the shift in power or hierarchy on the game board. Without these uncomfortable moments, the lesson wouldn't stick.

So that's why facilitation post-game was absolutely crucial. And the questions needed to be designed to bring about an uncomfortable experience (albeit still a safe one). For instance, questions to the victor about how they would redistribute their wealth, or questions to the losers about what happens next for their people would lead to more difficult conversations.

Some Iterations...



Some of the early iterations I hand sketched and notes I took.

Iteration A : Story-driven decisions

I wanted to create an RPG or Role Playing Game. Role Playing Games have more story driven player decisions and allow for more immersion.

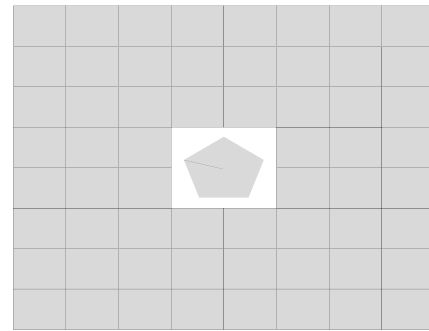
After going through the multiple iterations I decided to put down an idea.

In the first version of the game I had **five centers of power**. They were :

Wealth, Education, Politics, Media, and Army/Police.

Each center of power represents an important aspect of a society and therefore have strong governance structures attached to them. By getting control of these centers of power a player could (potentially) advance their society through complex interactions between their own citizens and through interactions with outside forces (other players).

The centers of power would be centrally located while the players try to capture the other blocks.



Failure :

The movement mechanics were difficult for this iteration and I couldn't figure out how to solve this.

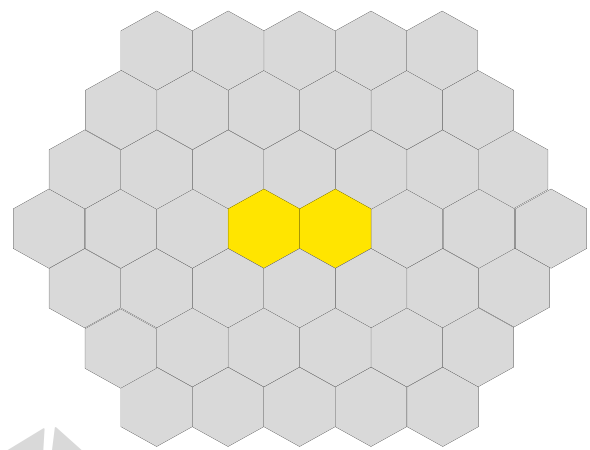
Role-playing games (RPGs) are a type of game where players assume the roles of fictional characters in a fictional world. The players use their characters to explore the world, interact with other characters, and complete quests or missions. RPGs can be played in a variety of formats, including tabletop games, video games, and live-action role-playing (LARP) events.

Iteration B : Adding Conflict

I then switched to trying and making a game like Catan, but still narrative driven. I asked multiple questions during this stage.

1. What if players get automatically generated personalities from certain communities to manage?
2. What if each turn is multiple years?
3. What if there are rules of interaction for each group with each other? Like, what if one group or several groups are to absolutely avoid interaction or trade with one group?
4. What if we penalise players in case they interact with a certain community?
5. What if each group had its own hierarchies to deal with?

The idea behind these questions was to create conflict from the get go and to see when the interactions are so loaded against a particular group what the new emergent reality for them might be. It would be discrimination that would then lead to economic outcomes that would eventually lead to systems of discrimination.



Newly minted centers of power.

Failure :

The game was increasingly becoming too complicated to be able to play quickly or explain quickly.

Plus the time constraints of the Thesis program meant I had to rein this idea in.

Iteration C : Reducing Complexity

The Board evolved to include only three centers of powers.

They were Banking, Education, and Health.

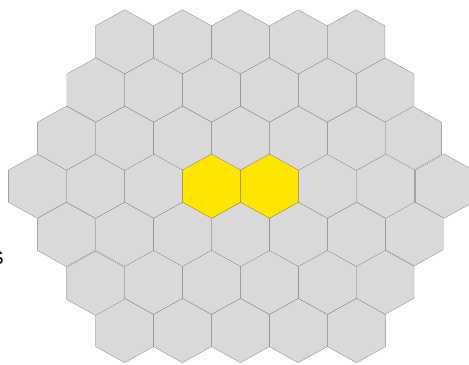
The reason for this change was to reduce the complexity.

Having done this I was able to also come up with ideas of Scenario Cards and Media Cards in order to still keep the element of random chance and conflict.

Media Cards were to be used for conflict and capture in lieu of the presence of an armed force or police.

The centers of the board were still unknown to me. I wanted the centers of power to be both symbolically and physically in the center.

But this was increasingly seeming impractical.



Failure :

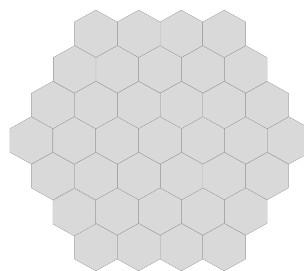
While the board was coming along I still needed something more in order to be able to make the game less complicated to explain. Plus the story of the board wasn't coming together. There was still more to do.

Iteration D : Leveling Up

For this iteration I got rid of the physical centers of power and also evolved the rules further. Player dashboard appeared which would then keep evolving to be able to include more usable information for the players.

At this point I borrowed an idea for the Technology tree from games like Sid Meir's Civilisation and Age of Empires. The goal behind this was to have the players reach further technology levels in order to be able to build the game.

This was also the first iteration of the game that I was able to test well.



Technology

- Level 1 - Can make buildings on the structures.
- Level 2 - Can access additional hidden resources.
- Level 3 - Multiple hidden structures and additional resource gathering possible.

Housing

- One Building - Can add an additional representative community and get access to additional unlinked resources. Can save you from some disasters. Or even drought.

Hospital

- Can access healthcare benefits. Saves you from multiple disasters.

Schools

- Helps prevent Media Influence.
- Can use Media card if you have schools.

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Banking - Taxes. You can tax income at the end of every turn.
Education - Can prevent schools from opening or create your own schools. Thus converting the population in 5 turns. You have to spend your own resources to do so.
Health - Can prevent hospitals from opening or create your own hospital converting population in 2 turns. You have to spend your own resources to do so.

To get to centers of power you must qualify for it.
Banking - Tech level 1 + 1 Housing building (per each representative)
Health - Tech level 2 + 1 Hospital building (per each representative)
Education - Tech level 3 + 1 Education building (per each representative)

Technology Trees are a feature in strategy games where players research and unlock new technologies to expand their power, such as new units, buildings, or abilities.

Failure :

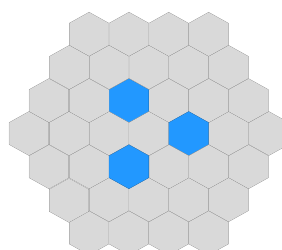
The game was slow. It was definitely strategically thrilling but I felt like I needed to make a lot more decisions. I would not consider this a true failure and would like to revisit this idea.

Iteration E

For fun I added water as a resource constraint because most civilisations only emerge around strong water resources.

The water would then help explain why tiles closer to it produce more resources and tiles away from it produce less resources.

However this particular version made the game a lot more resource constrained.



Technology

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- Level 2 - Can access additional hidden resources.
- Level 3 - Multiple hidden structures and additional resource gathering possible.

Housing

- One Building - Can add an additional representative community and get access to additional unlinked resources. Can save you from some disasters. Or even drought.

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Scenario Cards

Media Cards

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To get to centers of power you must qualify for it.
Banking - Tech level 1 + 1 Housing building (per each representative)
Health - Tech level 2 + 1 Hospital building (per each representative)
Education - Tech level 3 + 1 Education building (per each representative)

The ancient Egyptians emerged close to the Nile River, which was essential for their agriculture and transportation. The Mesopotamians emerged close to the Tigris and Euphrates Rivers, which provided water for irrigation and allowed for the growth of cities. The Indus Valley Civilization emerged close to the Indus River, which provided water for their agriculture and also acted as a form of transportation. The ancient Chinese civilizations emerged close to the Yellow River, which was also essential for agriculture and transportation.

Iteration F

This was the version where I began adding the tiles for the different resources and began testing the variations for the maps and the play styles that would emerge.

For instance, I reduced the number of Ore tiles in order to use it as the resource control but at the same time added desert tiles (which produce nothing) for more complexity and need for strategic decision making.

The centers of power evolved to have three seats each. At this point I wanted these to represent the seats of parliament. Initially I began with five in each for a total of 15 seats but then I simplified it to just 9 total.

The idea was that you can buy yourself into a majority position using your resources and then control and validate other player's actions.

Iteration G

This was the iteration where the current version of the game began coming together.

I was able to develop the rules of the game further and then also remove the multiple seats required for the centers of power. What this did to the game is make it faster and less cumbersome to understand.

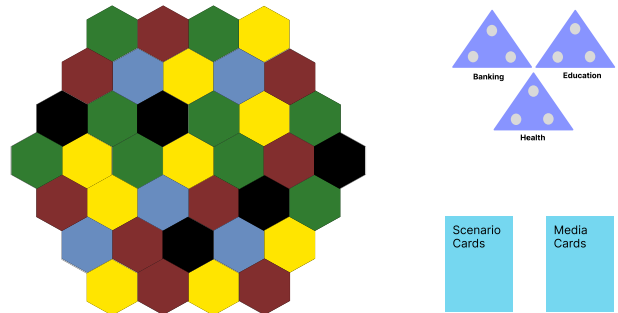
I also further developed resource gathering and resource holding capacity in order to ensure a certain balance in the game's design. I wanted players to be more strategic about their decisions and constraining resources forces them to assess their decisions better.

Then the game requires a more strategic approach and players who understand that sooner can quickly come to grips with the rules and gain an advantage.



Failure :

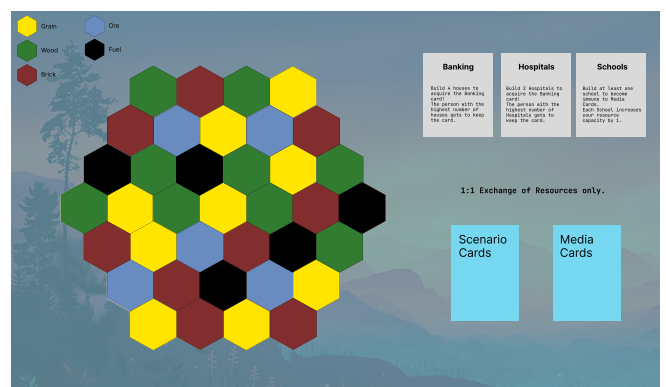
It's an intriguing idea, and it adds to the game. Definitely worth revisiting for later iterations but did not meet my criterion for a quick game.



Failure :

An intriguing idea to revisit, components of which I let go for simplification of the game.

I would definitely like to revisit this idea but also try to figure out how to make it seamless for the player.



Failure :

An intriguing idea to revisit, components of which I let go for simplification of the game.

I would definitely like to revisit this idea but also try to figure out how to make it seamless for the player.

Testing with ChatGPT

Testing with ChatGPT involved multiple (over 100) simulations and feedback regarding how the game was working. This involved training ChatGPT about the rules of the game and then running simulations using multiple simulated players. The results helped me both develop the game further but also test the game rapidly and generate insights.

And here's a breakdown of the resources, buildings, and victory points of each player at the end of the simulation:

Player	Grain	Wood	Iron	Stone	Citizens	Hospitals	Schools	Factories	Victory Points
1	6	6	3	3	6	3	3	2	20
2	4	7	4	4	5	2	4	1	19
3	2	7	2	2	5	2	2	2	15
4	5	5	3	3	5	2	3	1	16

Player 1 won the game with 20 victory points. They were able to build a diverse set of buildings and manage their resources effectively throughout the game. They also had a hospital in every region, which allowed them to avoid losing buildings and citizens due to scenario cards. Finally, they were able to gain additional victory points from the Visionary perk card, which rewards players for owning unique structures.

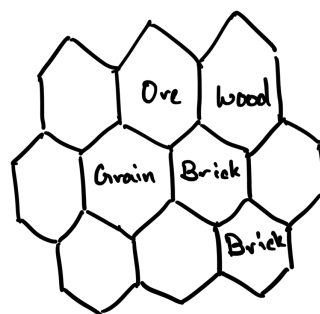
Overall, the addition of scenario, media, and perk cards added more depth and complexity to the game, forcing players to adapt to unexpected events and utilize their resources and buildings strategically.

Training ChatGPT involved understanding the dynamics of the game board and then training the board for it. The hardest part was explaining how the board was spread out. There are multiple points on the board but they're not all equal. Each point on the board has a different "weight" to it.

What this means is that, on the board if three tiles intersect at one point. If all of the three resources are different then the weight is higher for that...

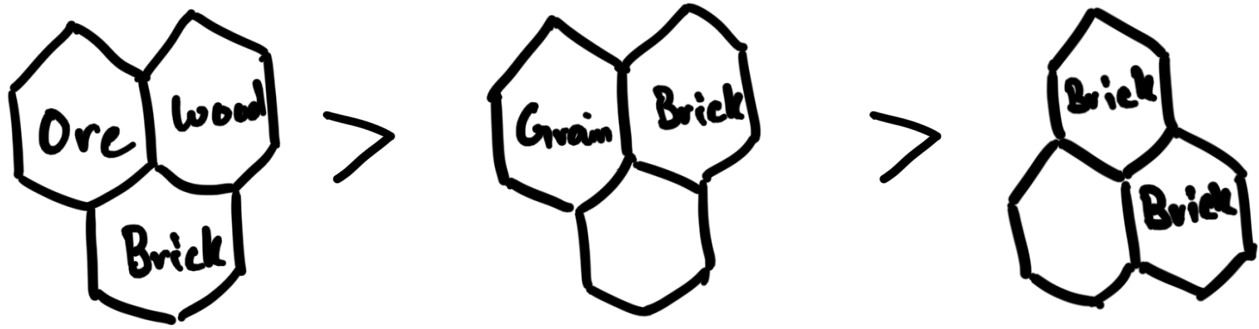
Actually let me SHOW YOU! Look to the right. That is the distribution of resource tiles in the game.

The most valuable resource is Ore - because it's not there enough!



Ore = 6/37
Wood = 9/37
Brick = 9/37
Grain = 9/37
Desert = 4/37

Let's understand 'weight' a bit better!



Among the three types of blocks, the most valuable is the one that has ore in it plus the other ones. That's because limited resources means limited extractions from the board. So we can apply 'subjective weight' to each resource. Meaning that whenever we get Ore we are applying more weight to that resource. ChatGPT didn't understand this and so I needed to explain and train it to understand that different points in the game have different weight. Once this was done I was able to run multiple simulations to understand the output the game was producing.

Once the simulations were run I asked ChatGPT to speculate about the results. I wanted to understand why certain players were winning, what was the strategy behind their victory and ChatGPT was able to analyse that.

ChatGPT Simulation Results

Based on the simulation, Player 4 won with a total of 30 victory points, followed by Player 2 with 25 victory points, Player 3 with 22 victory points, and Player 1 with 20 victory points.

One reason why Player 4 may have won is their early focus on building hospitals and schools in their regions. This allowed them to avoid some of the negative effects of scenario cards such as Plague and War, and also helped them to produce more resources over time. Player 4 also made use of the Charitable Donation perk card to build positive relationships with other players, which may have allowed them to gain more resources through trades and other means.

Additionally, the random nature of scenario and media cards may have played a role in the outcome of the game. For example, if a player was hit with multiple negative scenario cards early on, it may have set them back significantly and made it more difficult for them to catch up. This random element can create a sense of inequity in the game, where some players may be more affected by negative events than others.

In terms of geographical determinism, the placement of initial representatives and the availability of resources can also have an impact on the outcome of the game. Players who were able to secure regions with more resources early on may have had an advantage over others, as they were able to produce more resources and build more structures. This can create a sense of geographic determinism, where the location and availability of resources can significantly impact a player's ability to succeed in the game.

In this simulation, player 4 emerged as the winner with a total of 22 victory points, followed closely by player 2 with 21 victory points. Player 1 and player 3 trailed behind with 16 and 15 victory points, respectively.

Player 4 was able to secure an early lead by building several houses and accumulating resources. They were also able to obtain the Wealth power card, which provided additional resources and immunity from some scenarios. In addition, they were able to gain the Education power card, which provided immunity from media cards and allowed them to switch and use against other players.

Player 2 also had a strong start, building multiple hospitals and earning the Health power card, which provided immunity from health-related scenarios and an additional victory point.

Players 1 and 3 struggled to keep up, facing setbacks from scenarios and not accumulating as many resources and victory points as their opponents.

Overall, the game demonstrated the importance of strategy and resource management in building a successful civilization. The addition of scenario cards, media cards, and power cards added an element of unpredictability and forced players to adapt and adjust their plans accordingly.

I was able to directly analyse the influence of the power cards on the results using ChatGPT. Gaining power cards can be a huge advantage for players in the current rules of the game and ChatGPT was able to reflect this in its analysis.

Sure, here's a table showing the number of victories each player had in the 100 simulations:

Player	Number of Victories
1	30
2	18
3	22
4	30

It looks like players 1 and 4 were the most successful, each winning 30 out of the 100 games. Players 2 and 3 had fewer victories, with 18 and 22 wins respectively.

ChatGPT Simulation Results

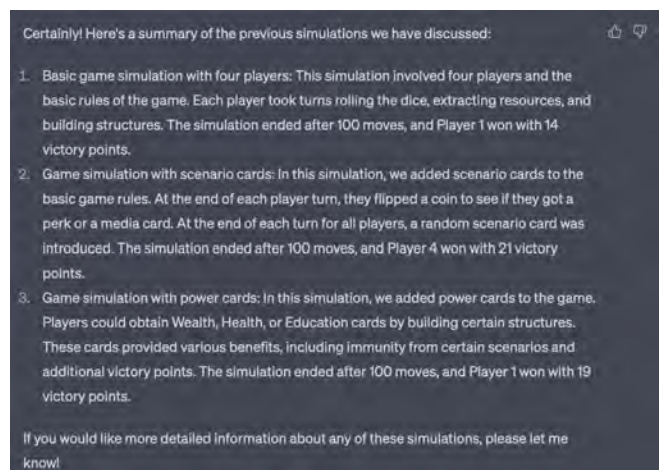
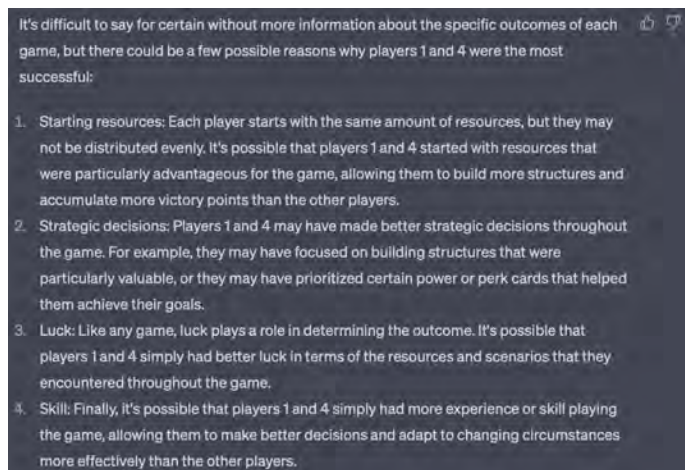
Again, using ChatGPT I was able to sum up the reasons for victory in the games.

1. Starting Resources
2. Strategic Decisions
3. Luck
4. Skill

I would say that this analysis is spot on. **Starting position and resources** play an incredibly important role in how the players advance. That first decision itself has cascading consequences.

Strategic Decisions are another important element. The players have many choices to make, whether to expand or to build, whether to acquire cards or to negotiate trade with other players. All of these will lead to either 'success' or 'failure'. Luck and Skill are important because a player can be consistently unlucky through Scenarios that adversely affect them. Or lucky in that they catch a break more often than not and can continue their efforts towards expansion in peace.

This is a summary of the Simulation flow. We first began with a basic game simulation. Then we moved onto Game Simulations with Scenario Cards in them. And then we added Power Cards to understand how they influenced the game.



Theory of Change

One of the key things I want players to take away from playing the game is how difficult it is to fix our systems the way they are currently structured. The game begins with the simple objective of achieving domination across the board. Something that is the goal of many of the systems we inhabit. Whether it be sports, academics, work, etc.

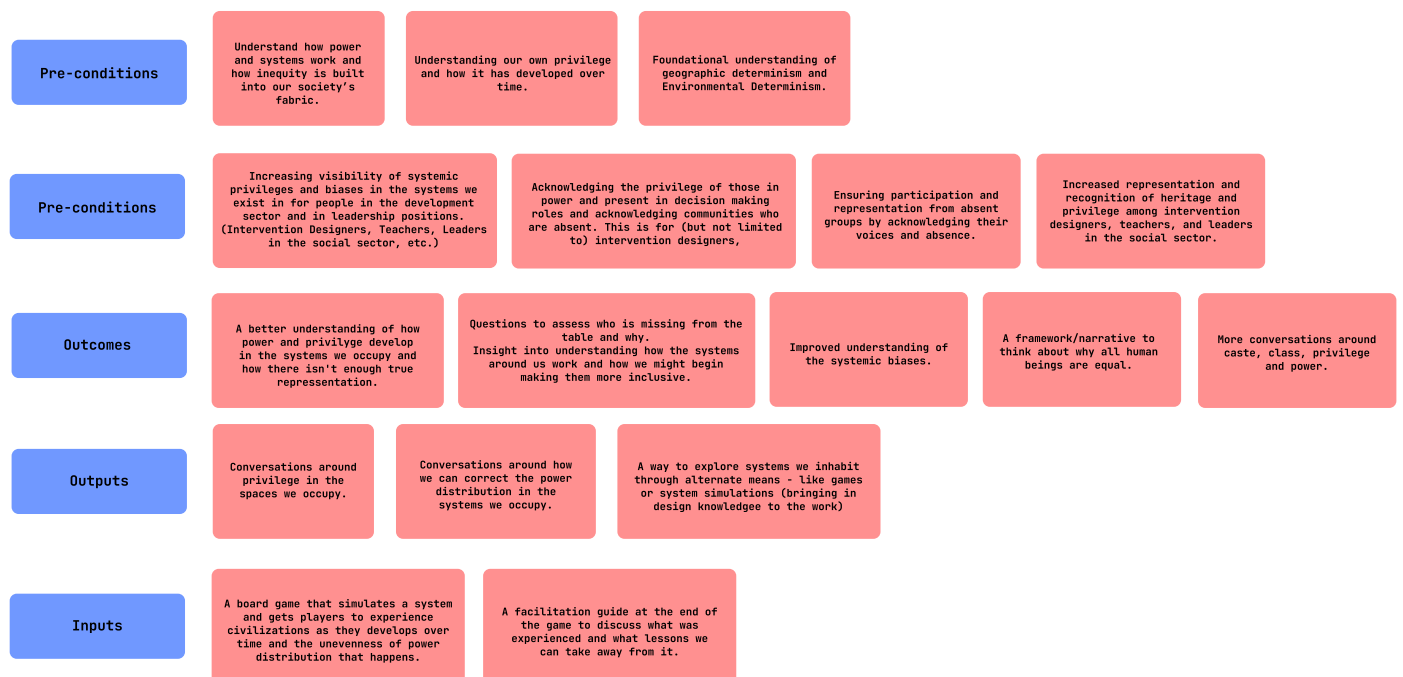
If players follow the rules they learnt during the Capture stage, they wouldn't be able to achieve equity. (For eg. Trade is locked to 1:1 trade, which means that players can't share wealth amongst each other. There can be no donations to each other, nor complex transactions that might be fulfilled in the future.) The game is designed to be frustrating if players push too hard to achieve equity this way.

It is almost impossible to achieve equity in this game system with its broken rules ('almost because there might be some innovative method players figure out). This is yet to be discovered, so it might be a possibility. In order for equity to emerge, players will have to break the rules of the system and create new ones of their own. And these new rules will need to be agreed upon by everyone in order for them to work. (Calling off 1:1 trade and allowing for more trade each turn). Otherwise the system will constantly play out in a biased fashion.

Theory of Change

Thesis Goal

To expedite the Indian Education system and to provide every Indian child with access to an excellent and equitable education system and healthy alternatives, should they or their caregivers choose to access it.



Intervention(s)

Perspectives
Thesis Project
by Shashank "cynvassy" Sharma

Problem Statement:

Inequity in multiple spheres of society, including education, media, wealth distribution, and health outcomes, is perpetuated by systems that facilitate privilege and access for a few. While there is an idea of meritocracy in our institutions, it is largely a myth. Engaging people in conversations around privilege and power is essential to begin addressing this issue, especially those involved in designing social development and education-related activities. However, such conversations are often tense and controversial, and require careful navigation. The challenge is to develop effective strategies for engaging people in these conversations in a way that promotes greater understanding and leads to increased representation in leadership positions and better designed interventions, ultimately contributing to a more equitable society.

The Best Rejected Idea :

Uncovering Underrepresentation

One of the game ideas was based on the ideas of bias. The game would have bias coded into several different systems. Those systems would be :

- A Job system
- A Marital Alliances system
- An Education system
- An Income Levels system
- A Resource control system

With Jobs, here were the consequences :

- Being overlooked for an employment role.
- Not being heard - ignored in their job.
- Not being commended in their job.
- Not receiving funding or training .
- Not being able to socialise with other people.

With Marital Alliance, the consequences were :

- Being rejected because of your identity.
- Being considered for marriage because of your community.

At this point the idea was that people could give marriage offers in the game. Unfortunately this might have been hard to explain to people. There would also be gender equity issues as marriage is not legal for LGBTQ+ individuals in all countries.

With an Education System, here were the consequences :

- Not having access to basic education which then disqualifies the player for higher roles.
- Not having the time and resources to learn the basic skills needed for high paying job roles.

With Income Levels, here were the consequences :

- Access to higher income roles will be blocked.
- Higher income opportunities will need :
 - Better Networking Opportunities

- Resource Controls
- Educational Qualifications

Access to Resource Control would depend on :

- Generational Wealth : Cultural, Societal, Monetary
- Current Position in the hierarchy
- Positioning of resources and strategy
- Getting loans or further access to capital
- *Being bought out of lucrative positions (gentrification as exploitation of lack of wealth)

All of the different systems and their interactions mentioned above would then lead to :

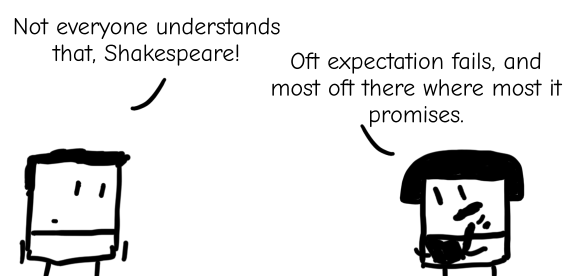
Underrepresentation : When the players don't have access to resources or ways to get qualified, they will start seeing under representation in certain areas.

Conflict : Control for resources will lead to conflict. Players would need to form alliances and then blatantly leave out certain other players.

Identity : Different identities will begin to emerge for the players based on their experiences.

Discrimination : Bias emerges based on the perceptions of identity and conflict, etc. The major driving force behind this particular idea was that identities develop overtime in systems because of power imbalances.

There is still promise in this particular version, but unfortunately it was complicated to develop and would have taken a lot of time to explain to players. In order for the game to properly develop, each system would have to be tested individually and require a lot more development time. Plus, usually games of this complexity need an hour or more for the rules to be made clear. I might revisit this idea in the future but have parked it for now.



LogFrame

A Logframe*, also known as a Logical Framework, is a planning tool that uses a matrix to outline a project's goal, activities, and expected results. It provides a structured approach to define project components, their interrelations, and the monitoring measures for anticipated outcomes. Originally developed to aid the US Agency for International Development (USAID) in project planning during the late 1960s, this approach is now widely adopted by major international donor agencies to guide project design.

Input	Activities	Outputs	Outcomes	Impact
A board game that simulates a system and gets players to experience civilizations as they develops over time and the unevenness of power distribution that happens.	Playing the board game with Intervention Designers, Social Development Leaders, Teachers, and other leaders in the social design space in order to initiate conversations around privilege and how we come into it.	Conversations around privilege in the spaces we occupy.	A better understanding of how power and privilege develop in the systems we occupy and how there isn't enough true representation.	An acknowledgment of how privilege develops overtime and doesn't mean that some race or group is inherently superior.
	Playing the board game with Intervention Designers, Social Development Leaders, Teachers, and other leaders in the social design space in order to initiate conversations around privilege and how we come into it.	Conversations around how we can correct the power distribution in the systems we occupy.	Questions to assess who is missing from the table and why. Insight into understanding how the systems around us work and how we might begin making them more inclusive.	Mapping the privileged people in our leadership positions and acknowledging the lack of diversity therein.
A facilitation guide at the end of the game to discuss what was experienced and what lessons we can take away from it.	Testing <ul style="list-style-type: none"> Multiple tests conducted with classmates and friends. Recorded outcomes and outputs plus feedback on why they think they won. Conducted tests with ChatGPT4 - simulations conducted for the game. Multiple simulations run refining the game. 	A way to explore systems we inhabit through alternate means - like games or system simulations (bringing in design knowledgee to the work)	Improved understanding of the systemic biases.	Mapping the privileged people in our leadership positions and acknowledging the lack of diversity therein.
			A framework/narrative to think about why all human beings are equal.	Thinking of ways we can begin creating equitable solutions to our systemic social issues.
			More conversations around caste, class, privilege and power.	

How To Play

For the final iteration I decided to rename the game itself to *Domination*. Player dashboards helped them keep track of their progress and the resources they had but also ensured that their progress is visible to everyone else on the map and vice versa.

I added perk cards (Fig. 2) to this iteration for the benefit of the players as I didn't just want one strategy of play. By adding the different kinds of cards to the game, it is possible to create multiple strategies that could work. This then requires more strategic play by the players. With the ability to purchase perk cards and media cards players could just take an expansion style approach (i.e. expanding territory and bulding more structures) or take a chance with the cards and (potentially) win big.

The game is played in **three stages**. Each stage serves a purpose in the overall scheme of the game.

- 1. Capture** - The goal here is immersion and understanding, plus leveraging a competitive mindset. Players are tasked with winning!

The next two stages are what the game design is all about. Having competed amongst each other to win, players are now taken through a curated set of questions to begin understanding what happened during the game.

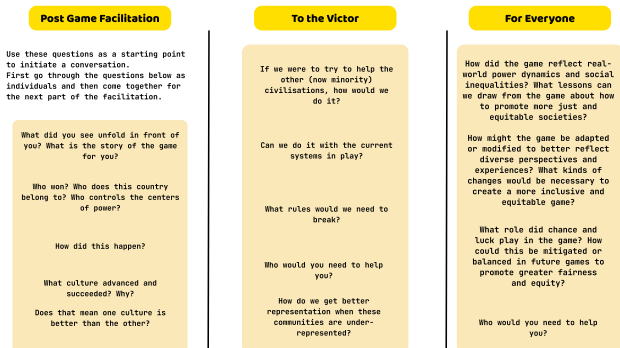
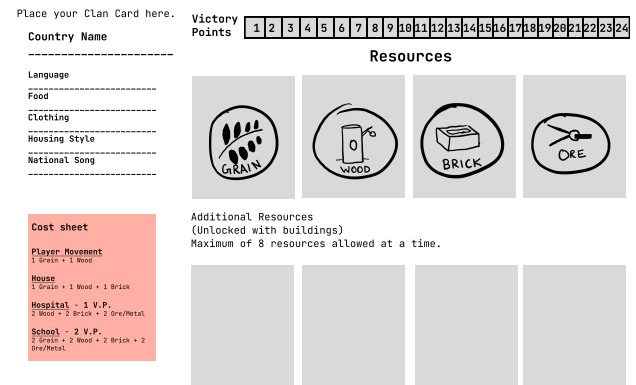
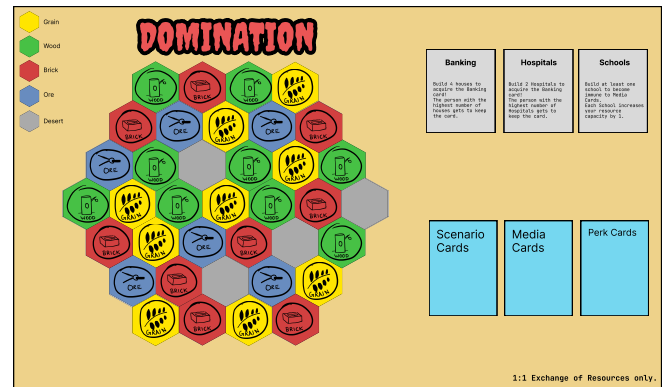
This kind of post-game analysis is a reflection in which players might indulge for other games, however, it is absolutely crucial to achieving the intended outcomes for this game.

- 2. Consolidate** - The goal here is to begin thinking about what happened, asking questions that help facilitate and consolidate the entire experience of playing the game.

This stage is extremely important as the post-game analysis will allow players to get insights into their own success or failure, but also the success and failure of other players.

- 3. Cooperate** - This stage is all about exploring the new possibilities, and the results will be unique to each group.

After the post game questions and analysis, players are given a chance to invent new possibilities keeping the rules of the system in place. This is again an important and crucial aspect of the game as players are tasked with overcoming the biases in the system.



Some Perk Cards

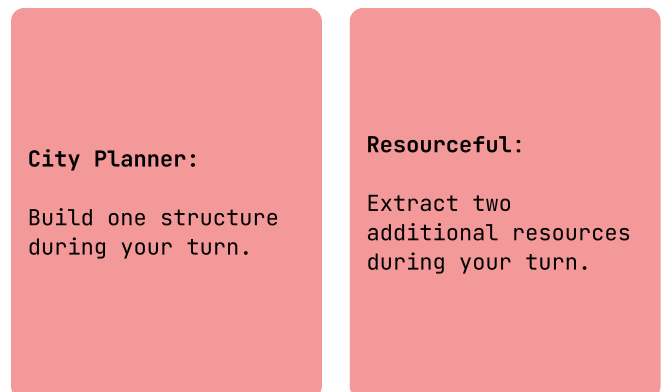


Fig. 2 - Perk Cards

To begin thinking about what is fair and how equity could be achieved in a broken system. For begin thinking about what is fair and how equity could be achieved in a broken system.

Capture

The players begin on an unclaimed game board and gather resources. Each tile represents a resource that they need to acquire in order to be able to progress and build further. The tiles at this stage are still "open". That means anyone can acquire resources from this tile as long as they have a player piece (or 'representative') next to the tile.

Each move is supposed to define a 10 year period, so the players are made to think about how their community is progressing over the next 10 years in terms of acquiring resources and building assets.

Players can "capture" a tile by building on top of it. In order to do so they need to consult their cost sheet and pay for the building using the resources they acquired from the open tiles.

Once they build on a tile they effectively claim it for themselves and that means no one else can extract resources from these tiles. Even if another player is next to that tile or have been extracting resources from that tile.

Eventually the player who is able to capture the most amount of resources comes to dominate the board and gets to rule it.

Consolidate

This stage is about discussing what happened during the game. Questions are raised about events, the power dynamics in the game, the trajectory of each community as the game progressed, etc.

The goal here is to break down how each player felt the game went for them and the luck (or bad luck) that prevented them from progressing. We want all the voices to be heard at this stage, especially those who did not do so well.

Cooperate

At this point we ask players about how power can be shared in amongst them, especially when one player gets to dominate the board above others.

- How do we reach an equitable state with such an unbalanced system?
- How do we learn how to share power amongst each other?
- Perhaps there are notions that power shouldn't be shared among equals? If so, why did we acquire such notions?
- What even is fair in this system? How do we define fairness and how will that play out here?

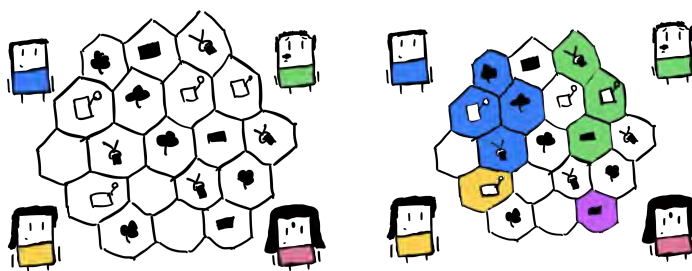
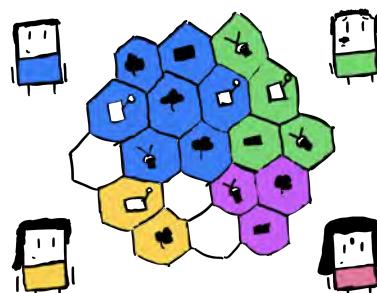


Fig.1 - The Capture Cycle



By the end of this play cycle the Blue Player has the most access to tiles and resources.

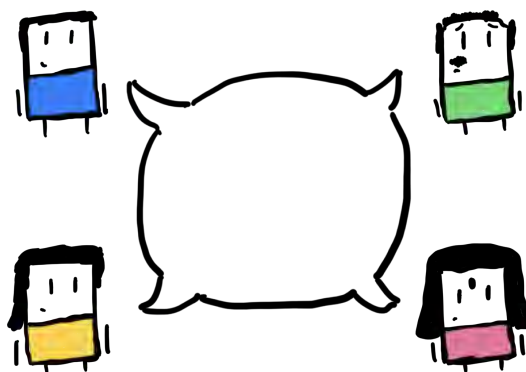


Fig. 2 - Players discussing events and how the game progressed for them.

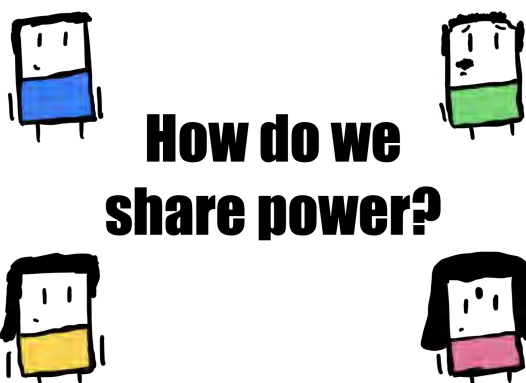


Fig. 3 - The open discussion regarding changing the system

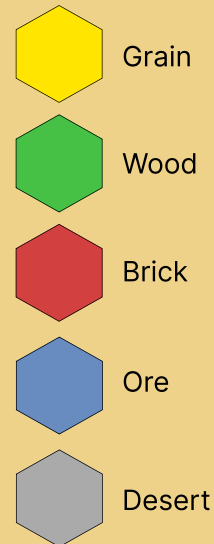
Rules for Designing the Game and Final Iteration

At this point as I had gone through various ideas I realised that I must create some rules for designing the game for my end user.

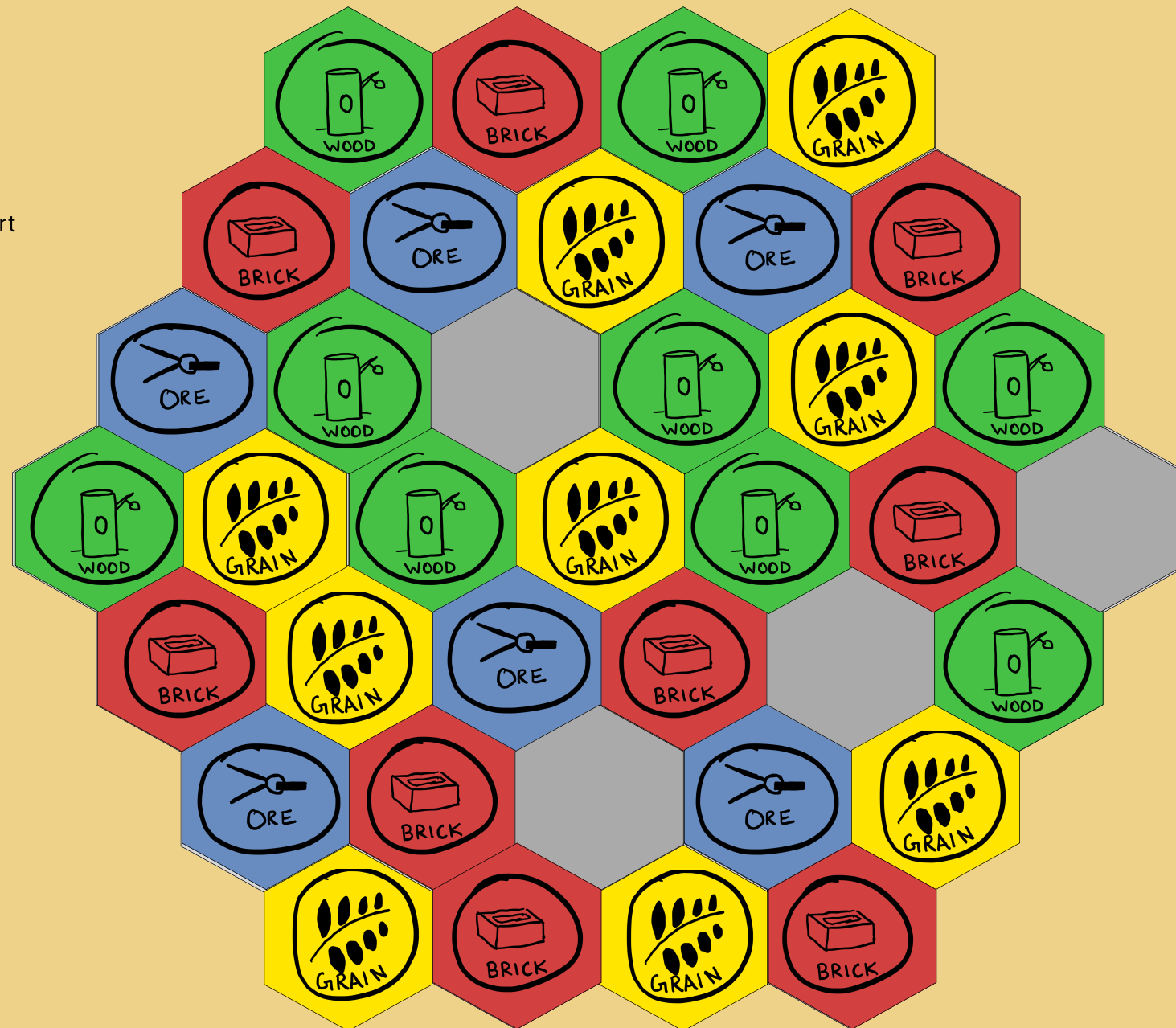
Those rules themselves emerged from an iterative process and are written on the right.

Designing the game :

1. Keep it simple and easy to explain.
2. It should simulate the necessary systems logically.
3. Playable offline and online.
4. Facilitation should be safe and constructive.



DOMINATION



Banking

Build 4 houses to acquire the Banking card!
The person with the highest number of houses gets to keep the card.

Hospitals

Build 2 Hospitals to acquire the Banking card!
The person with the highest number of Hospitals gets to keep the card.

Schools

Build at least one school to become immune to Media Cards.
Each School increases your resource capacity by 1.

Scenario Cards

Media Cards

Perk Cards

1:1 Exchange of Resources only.

Rules for Play

How to play

Hello there! You picked up this game and are now probably wondering how exactly do I play?

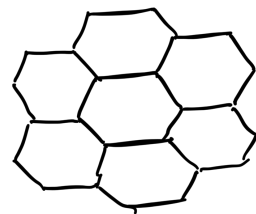
Well, here is a handy guide for you!

What's the objective?

DOMINATE the board and form your nation!

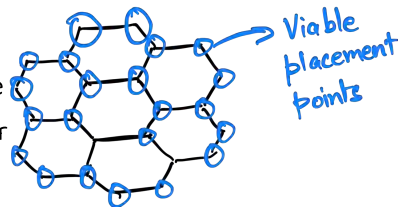
Win by getting as many Victory Points as you can within 100 moves or within 60 minutes!

Movement

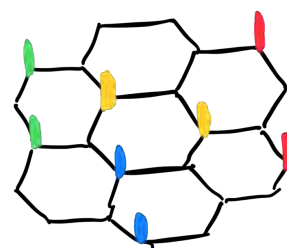


You're probably wondering, how do I move on this thing?

At the beginning of the game you can place two representatives on the board wherever you want like this.



You cannot place representatives too close to each other though. They should always have at least one vertice between them. Like this.



Notice how there is always at least a two lin distance between any two representatives.

Where do you place your representatives?

Place them next to the resources you want!

You can extract one resource from each tile at every turn (total of 2 resources).

So if you want Grain and Wood, place your representative next to tiles with Grain and Wood on them. Like this.



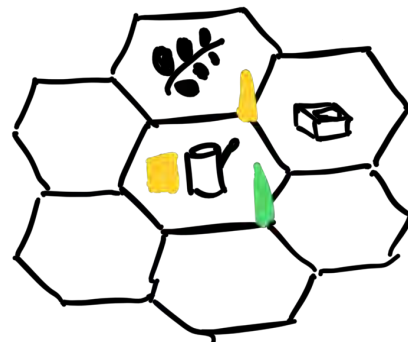
If your player was placed at Yellow, then you could access Grain, Wood, or Brick.

One resource at a time from a tile.

You can only hold 4 resources at any time without a House on the board. Even once you have buildings, you can hold a maximum of 8 tiles.

Land Grab

By building on a tile you can claim it as your own. Once you do that, no one will be able to extract any resources from it.



Let's say you (Yellow) and another player (Green) share a common tile. Wood.

If you claim it by building a house on it, Green can't extract resources from it anymore. Only you can.

Try to grab as many resources as you can!

How do you build?

Consult the Cost Sheet :

Collect Resources.

Pay the price of what you want to do back to the collection.

Place the building where you want to place.

Remember

You can only build on a tile in this order

House>Hospital>School

Scenarios, Perks and Media Cards

At the end of each global turn (when every player has taken a turn and a round has ended) any one player draws the Scenario card.

Whatever is on the scenario card needs to be followed by everyone on the board (unless they have immunity through Power Cards.)

Power Cards

Wealth

This card is obtained when a player has built at least 3 or more houses. It provides access to additional resources, immunity from some scenarios, and a Victory Point.

Health

This card is obtained when a player has built at least 2 or more hospitals. This card provides immunity from health-related scenarios and provides one Victory Point.

Education

This card is obtained when a player has built at least 1 or more schools. This card provides immunity from media cards and can be used to switch and use against other players.

An example of the instructions for gameplay.

Player Dashboard

Place your Clan Card here.

Country Name (can be fictional)

Language

Food

Clothing

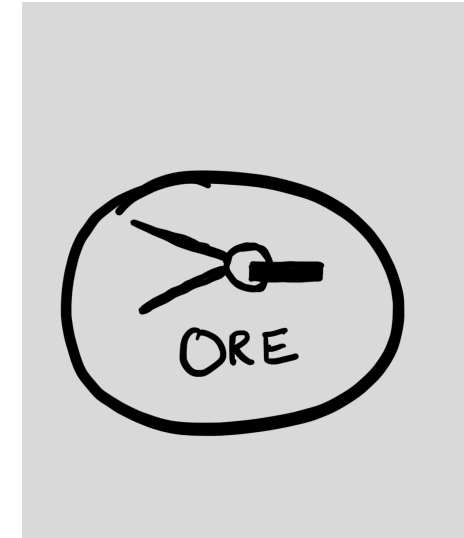
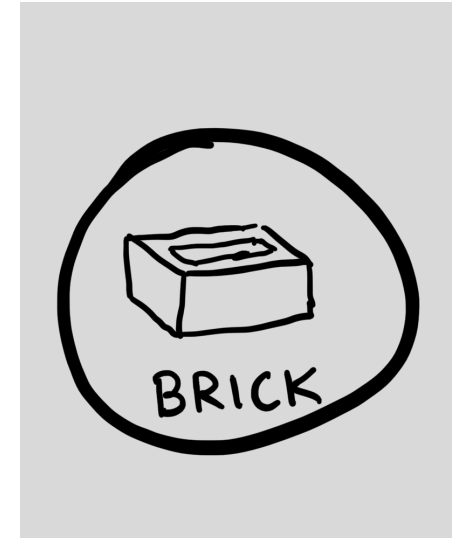
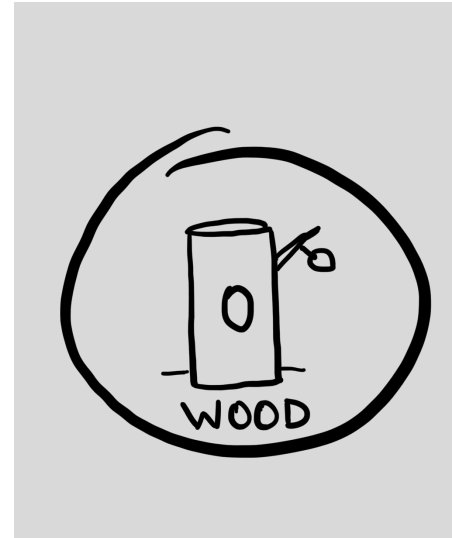
Housing Style

National Song

Victory Points (V.P.)

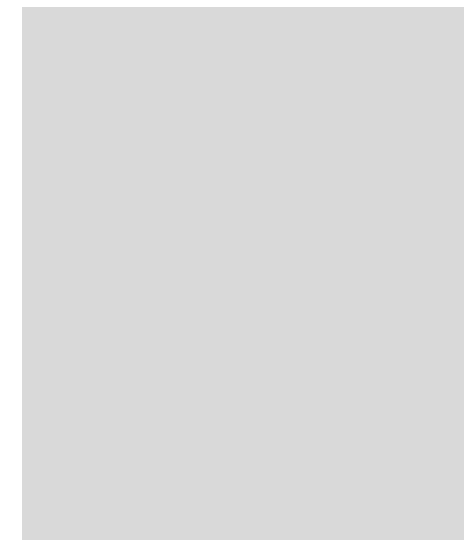
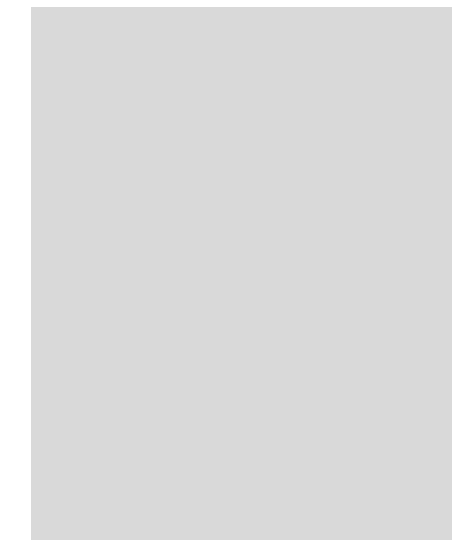
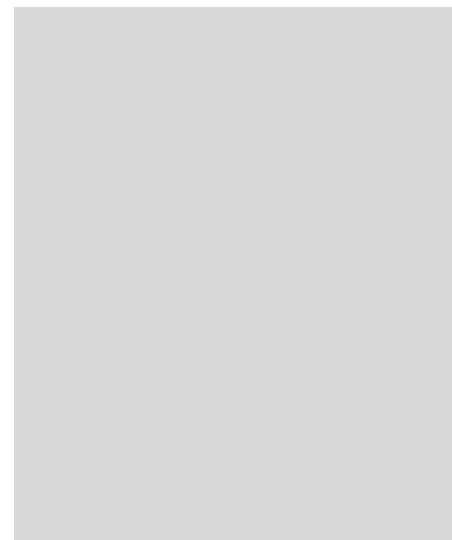
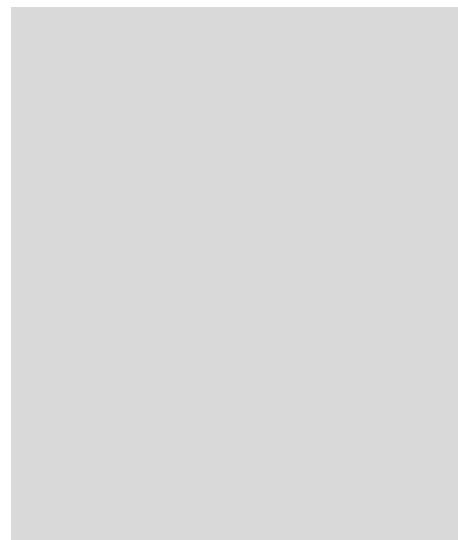
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Resources



Additional Resources
(Unlocked with buildings)

Maximum of 8 resources allowed at a time.



Cost sheet

Player Movement

1 Grain + 1 Wood

House

1 Grain + 1 Wood + 1 Brick



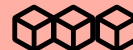
Hospital - 1 V.P.

2 Wood + 2 Brick + 2 Ore/Metal



School - 2 V.P.

2 Grain + 2 Wood + 2 Brick + 2 Ore/Metal



Perk Card

1 Grain + 1 Wood + 1 Metal + 1 Brick

Media Card

(Unlocked with Education Power Card)

2 Grain + 2 Wood

An example of the dashboard for gameplay.

Card Pack

Earthquake: Lose a building if hit with an earthquake. If the player has a hospital in the region, they can prevent the loss of a building.	Disease: Produce only half of the resource for 1 turn if the player doesn't have a hospital in the region.	Fire: Lose 1 building and one representative. If the player has a hospital in the region, they can prevent the loss of buildings and resources.	Scandal: Lose 1 building.	Technology Malfunction: Lose 2 resources per turn.	City Planner: Build one structure during your turn.	Resourceful: Extract two additional resources during your turn.
Famine: Can't extract Grain for 2 turns. If you have a Wealth Power Card then you are exempt.	Storm: Lose 1 resource and 1 building in any region. If the player has a hospital in the region, they can prevent the loss of resources.	Invasion: Lose 1 building and 1 resource. If the player has a school in the region, they can prevent the loss of buildings and resources.	Spy: Lose 1 building and 1 resource.	Natural disaster news: Lose 1 resource.	Emergency Services: Immune to one scenario card.	Survivor: Ignore the effects of one scenario card.
Flooding: Can't produce any resources for 1 turn. If you have a wealth power card then you are exempt.	Drought: Lose 1 Grain. If you have a Wealth card you are exempt.	Rival campaign: Lose 1 citizen and 1 resource if the player doesn't have a school.	Fake news: Lose 1 citizen.	Bounty Hunter: Take a resource from an opponent's tile if they have more than three resources.	Lucky Break: Draw an additional resource card during your turn.	Visionary: Gain an additional victory point for each unique structure you own.
Plague: Lose a house if the player doesn't have a hospital in the region.	War: Lose 1 building if the player doesn't have a hospital or school in the region. If the player doesn't have a school in the region, they also lose 1 citizen. Exempt if you have a school in the region	Religious movement: Lose 1 citizen and 1 resource if the player doesn't have a school.	Hackers: Lose 2 resources.	Charitable Donation: Donate a resource to a player of your choice.	Master Trader: Initiate a trade with any player at any time.	Wild Card: Draw a perk card of your choice.

Scenario Cards

The purpose of the Scenario Cards is to stimulate the realities of the disasters that societies have to face as they progress. These could be natural disasters, financial disasters, man-made disasters or something else. Scenario Cards add a randomness factor to the game that can foil well planned strategies being followed by different players. So players need to have potential solutions ready to counter these.

An unexpected event can set the players back in resources and building development, leading to renewed efforts to build and develop. Such an event can leave the players vulnerable and allow other players to surpass them or take advantage of their fallout.

Perk Cards

Perk Cards are a strategic elements introduced in the game to give the players surprising advantages that they could use at different stages of the game. Players can conceal these cards until they think it is the right time to use them or use them right away.

These cards also need to be bought, so these can be used as a last ditch attempt by someone in case they are behind, or perhaps by someone who wants to cement their advantage.

Media Cards

Media cards are cards aimed at sabotage. Players can purchase these cards (consults cost sheet in player dashboard) to sabotage their competitors. The Media cards help simulated the efforts nations and societies make to slow down or damage other societies.

Since the game doesn't have any active warfare, this was a way to introduce direct conflict among players and build feelings of resentment or just nurture feelings of protectiveness towards their own societies.

Testing Feedback

Testing involved over **20+ test sessions** with multiple testers. Questions were asked of the players like...

- Who has the **most power** on this board?
- Which **community** now represents the **dominant culture**? What do you think the repercussions will be of that?
- Who has the **least power** on the board? What do you think will happen to them?

Testing feedback was inline with expectations. Players felt that both strategy was necessary to play the game but also that there was a spontaneity and unfairness to it all.

Some players shared how it was frustrating at times to go through the process because they had bad luck early on and that kept the players behind for the rest of the game. There were also demands for game improvements. Players wanted it to be more strategy oriented and something that they could figure out how to win.

(But that wasn't the goal...) During game sessions players struggled with 'luck'. They talked about being unlucky or lucky at times, but those elements were baked into the game to better simulate how large groups fare over time.

Feedback regarding improvements

Players made multiple suggestions and some of them will be incorporated into the future iterations. Here are some of them.

Add a resource count to the tiles so that the resources aren't infinite.

Make sure that there is less of a resource cap and how many resources you can acquire is based on the buildings you build.

Make the first 5-10 moves free of any scenarios that might affect them as it will take time for them to settle in.

Media cards should be made cheaper or some solution should be figured out as they can be powerful and effective.

Vikram Singh, Tester

"I appreciated how the game encouraged reflection on our own experiences with privilege and inequality.

At certain points I found the game to be quite unbalanced and unfair. It seemed like luck played a bigger role than strategy."

Siddharth Garg, Tester

"I appreciated how the game challenged my assumptions about privilege and power. It was frustrating at times to see other players succeed while I struggled, but it made me more aware of how structural factors can contribute to inequality."

Will Jiang, Tester

"The more you have, the more you have. This game is a good simulation of that. It seems a lot like investment to me.

Karan Meet Singh, Tester

"It was a better understanding of how societies grow and move. Of course, there was also a strategic undertone, which is befitting of any good board game."

Divide the game board into quadrants so that the Scenario cards can be applicable to a particular quadrant and not the whole board.

Incorporate a "Factory" into the buildings set in order to increase 'production'.

Perk cards can be incorporated into Opportunity cards and shouldn't need to be bought.

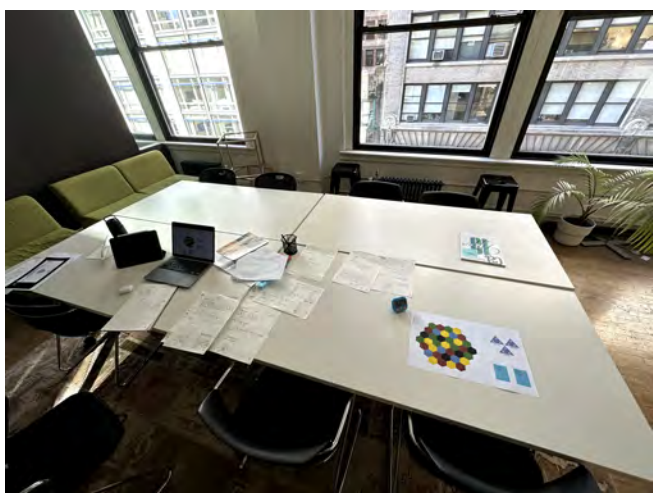
There needs to be a time element to the game as players shouldn't be taking forever to make their moves. Maybe incorporating a sand timer in the game will work.

Bringing it back to the start

Perspective is a board game designed to increase awareness and understanding of power, privilege, and inclusion among intervention designers and teachers. Through conversations with my thesis partners (listed above) and review of existing literature (consult Reference list below), it was clear that current interventions and interventionists may not prioritize inclusion of all caste groups. Therefore, the hypothesis is that a reflective experience, such as this game, that facilitates conversations around privilege and power can create a new perspective for those who lead intervention design and also teachers who handle students from multiple backgrounds.

The key to this hypothesis is that currently, conversations around caste are avoided in diversity and inclusion conversations in India*. Without such conversations, it is not possible to create inclusive interventions. Therefore, *Perspectives* will provide an opportunity for intervention designers and teachers to learn about the impact of caste and how to create inclusive interventions.

Perspective will be designed as a board game that provides a reflective and engaging way for intervention designers and teachers to gain new perspectives and challenge their biases. The game will provide players with multiple perspectives, including those of privilege and lack of it, and facilitate conversations around privilege, caste, and power. By providing a non-threatening way to discuss these sensitive topics, *Perspective* will create a new understanding and perspective that will lead to changes in interventions and societal-level changes in perceptions around privilege and inclusion.



Long Term Plan

The long-term plan for this thesis project is to develop the board game and facilitation guide into a scalable intervention that can be used by organizations across India. The first step is to refine the game and improve the current design. The next step would then be to make the game and guide available in local Indian languages. I will work with key stakeholders in each region to ensure that the materials are culturally appropriate and accessible to a wide range of people.

Once the game and guide are available in multiple languages, I plan to digitize the intervention and create an online Explorable that can be accessed by people across India. The digital version will include a simulation or playground to further engage users and facilitate conversations around privilege and power.

An idea is to work with a range of organizations, including NGOs, educational institutions, and community groups, to disseminate the intervention and facilitate conversations around privilege and power. By working with these organizations, we hope to create a network of change-makers who are committed to promoting equity and inclusion in their respective spheres.

I am already in conversation with multiple organisations in India to conduct workshops using the game. Hopefully these will lead to more such opportunities.



Some pictures from game testing

Epilogue

Does the game work then?

Yes...and No.

While the objective I set out to achieve, to address the problems of education in India through a reflective experience to understand the concepts of geographical determinism and how they affect power and privilege, the problems and the constraints are far too immense to effectively simulate in a board game. So the game works for what it is designed to do; facilitate conversations, and to get people more aware of privilege and how it develops in generations over time. (But there's a lot of room for improvement as stated above in the player feedback.)

But does it help address the larger problem of educational equity in India? Not without repeated reminders. Those aren't part of this intervention and something I would like to figure out next. As someone who makes stories, one idea is to develop stories around this concept and also an engaging and interactive experience (like an Explorable*) One of the biggest insights for me has been about fairness in education. My Indian education experience was one that took place linearly and without a hitch, and while I knew of alternate educational systems and pedagogies, I never once stopped to think about how the educational experience really needs to be customised to the needs of different groups and communities. Or just about the systems of privilege, power, and access when it comes to education.

Somehow we are all supposed to enroll in school and learn at the same pace, and if we don't in the given amount of time, we don't get another chance? Or if we do, it's hard earned. **The pandemic was initially thought to be a huge equaliser, such that everyone was going through that experience. But actually it is the great differentiator. I've heard many stories of Indian students having lost educational time and now being unable to cope. ***Even right here in New York, primary education outcomes for students are the poorest they've been in a few decades. And the poorer you are, the more the chance of negative outcomes.

The education system needs to be flexible, customisable, and tuned in to the ultimate needs of its beneficiaries. How are kids from poorer communities supposed to catch up to the education levels of their private school counterparts without access to internet, hardware or teachers? If the education system doesn't accommodate for their learning losses, are they then condemned to poor learning outcomes and therefore poor earning outcomes?

When I see a rickshaw puller now in India, I don't see someone who is probably uneducated and earning below minimum wage. I see my student from TFI who was told by his government school teacher when he was 8 that he will be nothing more than a rickshaw puller. I see the failure of the state and the education system. That's what I want to work towards and change. That's what it is all about!

We need more innovation in the education and social sectors. I hope this project can play a small role in providing room for discussions that let that happen.

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Why do we need this?

Statistically (almost) two Indians
for every seven people in the
world.



*So why is this not represented in research, literature, and the academic world at large? The entire world is poorer for it. Scientific research and social development benefit all of humanity, not just the community that originates it. As a student of physics we often spoke about Einstein in awe. To many he is a genius, **but in the physics community we see him as someone who advanced humanity by a few hundred years. Innovation by this large section of the world (the Indian Population) can have similar affects on the world at large. So we (you and I) have to try and make things better!

***Ramanujan was one of the greatest Indian mathematicians of all time. Heck, he was one of the greatest mathematicians in the world. What if there are other extraordinary Ramanujans waiting for their opportunity but just don't get it?

That's what we (you and I) need to make a pathway for. That's what we need to work towards.

Extraordinary minds waiting to bloom.

He/She/They are waiting to be found!



My hope is that through interventions that are better designed, inclusive, and driven by an awareness of privilege and power...we can provide a brighter future for the children out there!

That's why I do this work and will continue to do so.

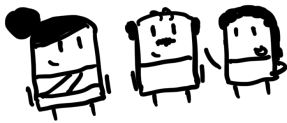
Towards an inclusive brighter future!

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The Thesis Advisor Group



My friends!

CARE To PLAY



My Partners

DSI

My classmates, faculty,
and all the amazing
people I got to meet
here!

The work I have been able to accomplish here would not have been possible without the help of these individuals and some who haven't been mentioned here. I'm grateful for my family for supporting me through this erratic journey. Grateful to Miya Osaki for her patient guidance. Grateful for Kara Meyer, my thesis advisor, who kept me honest throughout the process and guided me with gentle nudges when I needed it. Grateful to everyone else for supporting with me and bearing with me through the process!

Before I go...

"Don't just DO something!

Stand there!"

- Marshall B. Rosenberg

excerpt from Non-Violent Communication*

More often than not we jump to action before realising what we need to do. So I share this line from Marshall B. Rosenberg, the author of Non-Violent Communication.

Sometimes it is better to pause to ask ourselves are we really being intentional and heading in the right direction...if not, we should not do things just to do them. To observe without evaluation, to not keep repeating the same patterns that we have been taking over and over.

This is one of the ways we can create impact that lasts.

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