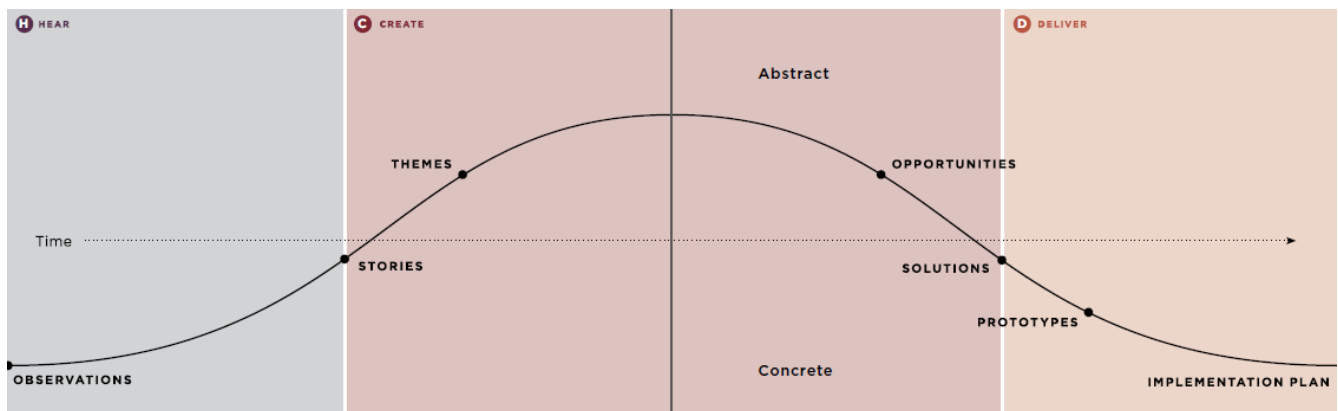


Human Centered Design Development Project- HCDD

This project will find and solve a development problem common in India's urban slums within 10 weeks. During this time, this project will research the problems that exist in the slums (4 weeks), work with designers and engineers to find a design based solution to this problem (4 weeks) and implement the solution in a way that it becomes part of local knowledge (2weeks).

The Project is guided by the Human Centered Design Toolkit that leans itself on the Stanford course for extreme affordability. The Toolkit guides the Project from the research phase (called hearing) to the development phase (called create) to the implementation phase (called delivery).

Currently, this project is in the 1st phase. Research data is gathered and analyzed. This phase will be concluded by the beginning of November. The 2nd phase will be conducted from the beginning of November until the beginning of December. Finally, the implementation of the solution will be executed. Special emphasis will be set upon introducing the idea in the Zeitgeist of the community, enabling the idea to spread throughout India.



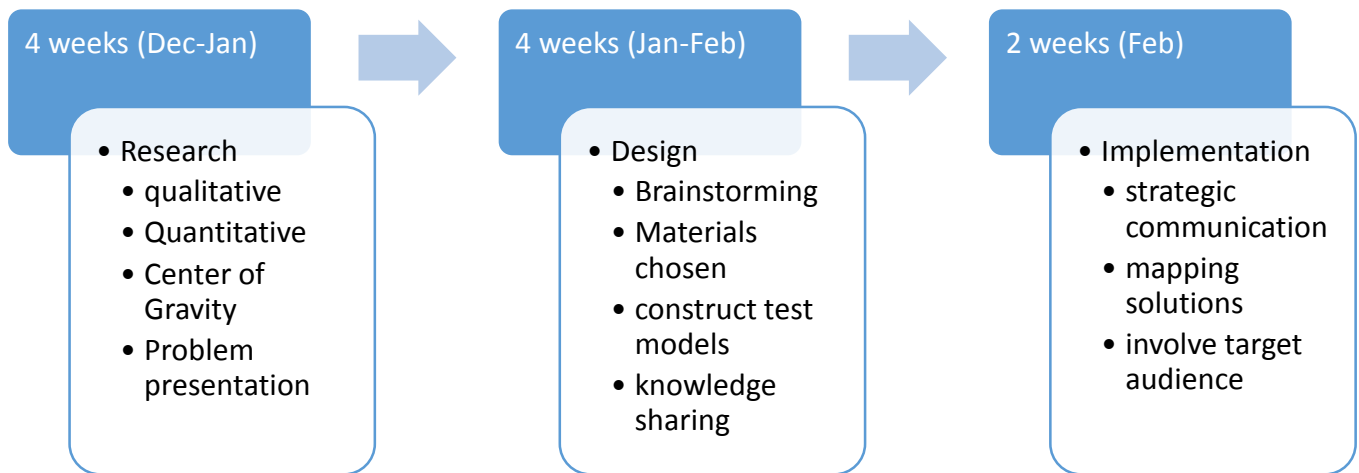
This project outline will highlight the objectives, methods and problems with every phase giving you an idea of the conduct of the project and where you might want to contribute to its success.

The budget of the project is 1000 Dollar. Therefore, nobody working on this project will be paid. The money will be used buying resources for the research (a pile of rubbish for the design team) and the remaining money will be spend on the implementation phase (installation, manufacturing, communications).

Project Outline

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Timeline



Research Phase

Objective

Identify the key needs of slum dwellers within Pune. Deliver these needs in a comprehensive form to the Design team for the 2nd phase.

Goals

- Identify core problems within slums in Pune. These problems shall affect the majority of the population and shall be practical in nature, so a design solution can be found. The problem shall be have a multiplicand effect (affects other areas of life, spreads of groups, issues, etc.).
- Use various research methods and approaches in order to achieve the biggest possible effectiveness.
- Use various datasets from various organizations in order to limit research errors.
- Involve all levels of the society when identifying the problems.

Side Goals

- Create a map of problems on a mind map.
- Present a single problem in various ways in order to increase the transparency of the problems for the design team.
- Create a network during the research process which will reevaluate the research outcome and improve upon it.

Problems (process)

- Limited resources and time for this phase.
- Limited access (gender, ethnicity, etc.) and language barrier.
- Timeline very short.
- No room for lessons learned and reflection.
- Too much reliance on qualitative interviews.

Risks (outcome)

- Wrong center of gravity when identifying the problems.
- Wrong partners, research resources and timeline.
- Research report quality with regard to the following design part.
- Deliberate misrepresentation of the slum by NGOs and interest of interview partners. Deliberate manipulation of dataset based on NGO/Researcher interests.

Activities

1st recognize existing knowledge (research reports, datasets, map NGO sector and welfare sector)

2nd Identify people to speak with / create team and networks

3rd Identify research methods

Individual Interviews

Group Interviews

In-Context Immersion

Self-documentation

Community Driven discovery

Expert Interviews

Qualitative interviews

4rd evaluate research outcomes

5th design research outcomes for Design phase

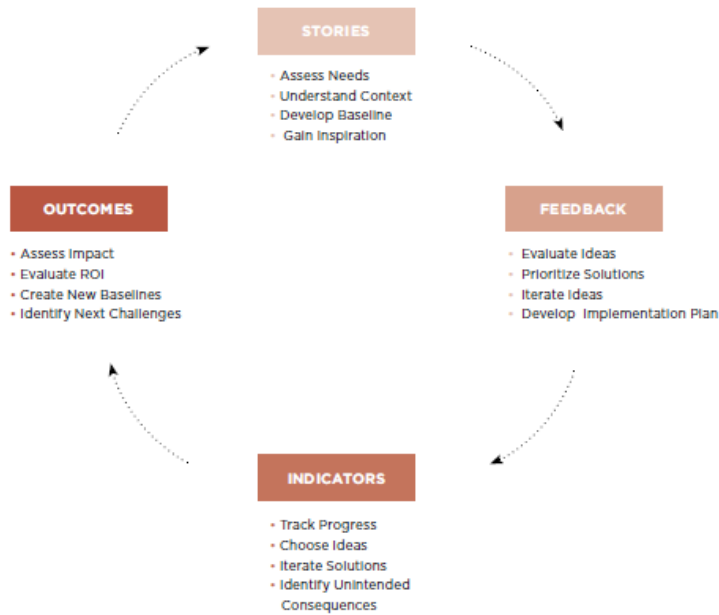
The Design Phase

Objective

To find a design solution for several problems presented for the first step. Once identified these solutions are ranked and their implement-ability is evaluated.

Goals

- Convey the problems of the slum in several ways to the design team.
- Group the design team and challenge them with various problem solving approaches.
- Preserve the results of brainstorming sessions for regular evaluation.
- Identify timetable with accordance of the availability of participants.
- Create an inclusive mechanism for broadening the scope of the design group.
- Constant evaluation of the Design process.
- Create time-line for prototypes and field testing.



Side Goals

- Create design sessions within slums involving community leaders.
- Create design sessions in cooperation with NGOs (engineers without borders, etc.).

Problems (process)

- No group mentality, no real teamwork.
- Academic and personal competition hinders the design process.
- Nobody shows up.
- Not enough/wrong materials available for the design team.
- Space for prototypes.
- Evaluation of production processes.

Risks (outcome)

- No single model can be decided upon.
- Not sufficient involvement of the target community (very problematic for 3rd step).

Activities

1st Develop the Approach

Method: Participatory design

“What would you design?”

Method: Participatory Co-Design

“What would we design?”

Method: Empathic Design

“I design for you”

2nd Share Stories

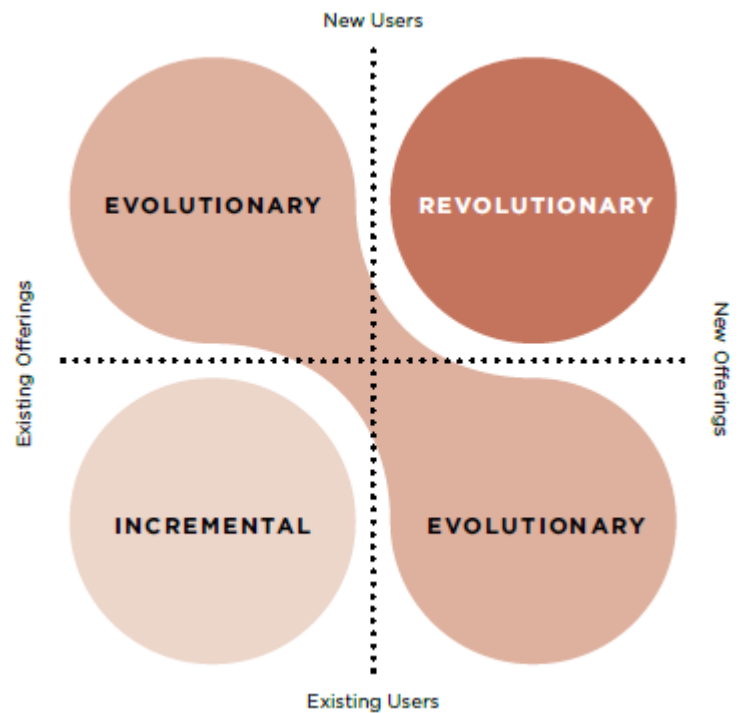
3rd Identify Patterns

Method: create Framework

Reoccurring problems during research

4th Create Opportunity Areas

Analysis of problems and variety of solutions in various aspects of the environment



The Implementation Phase

Objective

Create a strategy for the implementation of the designed solution(s) in a chosen community, while the practices of knowledge sharing will spread the solution to other communities.

Goals

- Assessing and improving of solutions created in the Design phase
- Ensuring affordability of created solutions
- Ensuring sustainability of created solutions
- Ensuring simplicity, so implementation requires minimal outside intervention/guidance
- Ensuring acceptance by the community
- Design a implementation/communication strategy that will spread the practice/product over the boundaries of the initial community its implemented in (local ownership)

Problems (process)

- Implementation might require additional tools
- Implementation might require outside intervention/guidance
- Solution might be rejected if ownership lies outside of the community
- Future benefit of solution might outweigh immediate costs for community

Risks (outcome)

- End product or parts of it might be not affordable for member of community
- Required parts might not be readily/easily available
- Required space for solution might not be available
- Solution might require changes to the substance (housing, furniture, etc.)

Activities

- Develop a sustainable implementation model: ensure affordability of different parts of the solution
 - Target group value proposition – what’s the value to the end user and how much is it worth to them? (will the target group be willing, able to afford it? Cost Benefit Analysis)
 - Revenue sources – how much and how do customers pay? (do they have to buy parts/full products, can they do it themselves?)
 - Stakeholder incentives – is value delivered and are incentives in place to participate?
- Identify capabilities required for delivering solutions
 - Distribution – channels and actors involved (Strategic communications strategies)
 - Capabilities required – what is needed and where is it available (local level, partners?)
 - Potential partners – who’s essential, what relationship, how to reach them
- Plan a pipeline of solutions
 - Mapping solutions according to the target group they target and the offers: existing offerings – new offerings; existing users – new users
 - That determines whether incremental, evolutionary or revolutionary innovation will be achieved with a solution
- Create an implementation timeline
- Plan Implementation & iteration
 - Testing the solution and pushing the process through mini-pilots
 - What resources needed, what questions need to be answered, how will success be measured?
 - Important: include both genders in testing and feedback

List of Potential Project Partners

This list is just the beginning. Many organisations on this list have already confirmed their participation however, the more the better. Therefore, a comprehensive effort to motivate more partners is needed.

Comment

Engineer

Designer

Film/Communication, psychological influences

Director MIT

Product Design

Organisation/company

fev.com

MIT Design

MIT Design

MIT Design

MIT Design

Interior Design Housing	MIT Design
3D Printing	MIT Design
foundation design and NGO (has datasets)	MIT Design
networking	MIT Design
Process Development	MIT Design
Engineer/networking	
Brainstorming	Engineers without borders
networking	Independent
film maker/networking/strategic communications design	Independent
networking	Independent
networking/research Mumbai?	Independent
networking/research Mumbai?	Inter Aide
networking/ research	Inter Aide
NGO/Strategic Communications Design	ECF
Networking Pune/NGO	RedR India
Program Support Mumbai engineer	Haas Consulting ARUNIM Association for Rehabilitation under National Trust Initiative in Marketing
Research/Networking	ECO TEC
http://eco-tec.com	eco-tecnologia.com Network for the Environment and Social (Human) Security Vigyan Ashram Deep Griha Society Shelter-Associates

Contact

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