

Last week we covered

Five steps of Design Thinking required for product design and development ,

1. Empathize
2. Define
3. Ideate
4. Prototype
5. Test

This week, we will move further into these design thinking tools for creating specifications for a farm or agricultural equipment .

Understanding Customer

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Who is our customer ?

Any one who wants **to do something** for **improvement** of current agricultural practices to either **increase yield** or **decrease effort** of workforce employed in agriculture

- A student of agriculture science
- Faculty of Agriculture Universities
- Agriculture Scientists
- Professionals in State and Central Departments of Agriculture
- NGOs in Agriculture
- Progressive farmers/ farming community

Empathy Tools

- **Blueprint : Physical resources provided by customer (Phone recording, Transcripts)**
- **Persona**
- **Storytelling**
- **Map of Empathy**
- **Task flow**

Blueprint

A typical service blueprint is composed of four elements

- The actions performed by customers
- Material evidence of the service
- The actions of front-office with the customer
- Technical support

Live Example :

- Consider an example of a tea leave plantation worker in Assam (India) who has been provided with a novel innovation of leave plucking which is designed for workers in plantations for china.
- The plantation management (**front office**) watch for the actions of the workers (**customer**)
- Collect and process the evidence of difficulties face by the workers (if any) and report them back to the factory in china (**Technical support**)



Small Tea Leaf Plucker

Persona

- Persona is an **expected target** to create an **innovative Solution**
- Personas is an imaginary model used for designing.
- They are invented from scratch by practitioners



Shelling with stone



Persona of a Cashew sheller

1. Women, working in a cashew shelling plant
2. Wears saree, while picking cashew out of the shell.
3. Clothes cover in **dark spots** where the cashew acid has squirted out from the shells
4. Prone to injuries on hands while shelling

Keywords

- Women Workers
- Informal Sector
- Work Hazard
- Acidic Environment

Storytelling

- Customers history of using a service or product through reliable sources can create a story
- The emotions expressed by customers and their successive states of mind .

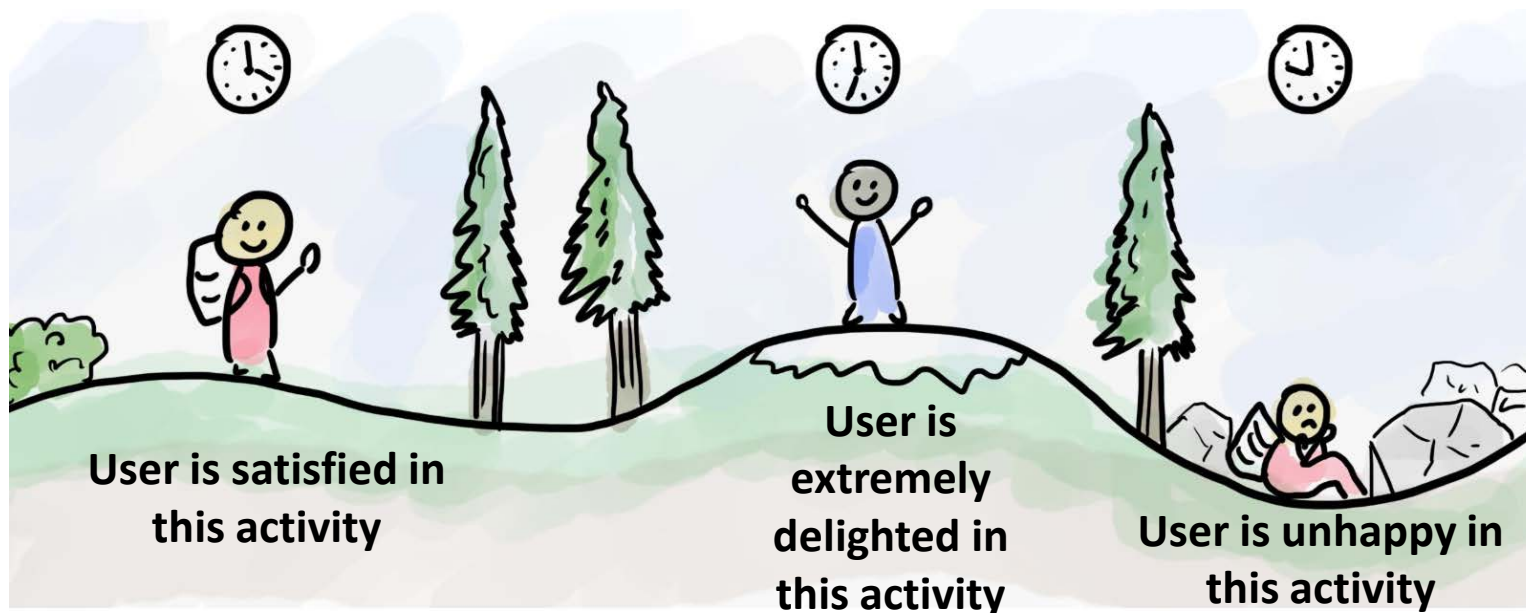


Story telling of a cotton seed plantation

- In Gujarat, small and marginalized farmer are dependent upon cash crops like cotton
- Depending upon monsoon, ploughing can be either single or deep depending upon the moisture of soil
- Since most farmers have less resources, they are dependent upon the frugal agricultural implements such as a plow shown in figure.

Map of Empathy

- Map the emotional status of the user while performing some action
- Note down which part of the activity is creating a stimuli to his/her emotional status
- What he /she is doing while that emotional status triggered . Transcript the thoughts



Task Flow

- Journey with tasks performed by the user in a chronological order (Time dependent)
- Recording successive task can help in dissecting the amount of resources consumed at each step
- It helps in prioritizing solution to the problems (if any) .

Successive task carried out by the user



**Release of caustic substances like
anacardic acid**



Conclusion

- Understanding a customer to create a user centered design is an idea that is needed to be explored in order to create most creative and effective solutions
- Engaging with our users emotionally by putting ourselves in their shoes can help us in identifying the problems that hide from an organization and keep affecting the product acceptance to its potential users.
- Go through all the steps that our user walks throughout his /her working period

Thank you