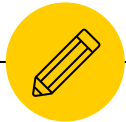
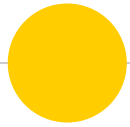


# VMWare

UX Design Internship - Summer 2017





# **Kaahor Xorai:**

## **Interaction Design Project**

Online platform for linking producers and sellers in the Traditional Handicraft industry

<http://www.abhraneelsarma.com/kaahor-xorai/index.html>



## Objective

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To research on the brass and bell metal workers in Hajo, an user group which is technologically backward; and design an intervention to aid them in their occupation.



# Methodology

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1. Literature Research
2. Contextual Inquiry
3. Analysis
4. Personas
5. Constraints & Design Goals
6. Design



# Preliminary Research

Literature Research revealed the plight of the traditional metal craft industry in Assam.

Provided a strong theoretical understanding of the factors which are affecting this industry.

## Research Questions

How has the economic status of the population been affected?

How has the government intervened in terms of aid or promotion?

Are there being provided with sufficient resources for education and healthcare?



## Contextual Inquiry

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We conducted 7 user interviews: 2 unstructured and 5 structured.

The interviewees varied in their monthly income and thus resulted in some differing opinions.

However, most interviewees echoed similar sentiments regarding the decline of the industry and the lack of market outside the state, and why they felt this was happening.



## Findings

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1. Lack of demand outside Assam, and the coarse nature of our work.
2. The household nature of the industry confines the scale of activities to individual household; State government has not taken steps to modernise the industry.
3. Price of raw material is increasing more rapidly than the selling price causing a decline of the industry.
4. Exploitation by middlemen and the disconnect or lack of transparency between the producers and the sellers.
5. Competition from industries outside Assam which uses machines to produce cheaper and better finished products.



# Personas

Our research revealed three broad types of users:

1. Craftsmen who are extremely dependent on the middlemen, and are engaged only seasonally.
2. Craftsmen who are able to sustain themselves on this industry but have experienced a decline.
3. Craftsmen who manage their business themselves.



**Muzamil Alam**

## CHARACTERISTICS

Muzamil has been working in the bell metal industry since the age of 12 when he dropped out of school. His father has been in the industry before him and was the one who trained him. His brother's left the town in search of work as the income was insufficient.

## FRUSTRATIONS

Poor profit margins  
Feels exploited by middlemen who take a cut of the profits  
Seasonal nature of the industry

## ASPIRATIONS

Better access to resources  
Government aid to supplement income  
Steady demand for goods  
Access to proper healthcare and education for family

## NEEDS

Steady source of income and greater income returns for the effort put in  
Greater share of the profits



**Sashikanta Bora**

## CHARACTERISTICS

Sashil works with his father in the industry for the past 10-12 years. His income is meagre but enough to sustain his family and send his kids to school. His father has been in the industry for over 40 years and has been able to acquire raw materials on loans at a lower rate of interest.

## FRUSTRATIONS

Poor profit margins  
Seasonal nature of the industry  
Lack of direct contact with sellers in the market and the need to go through the middlemen

## ASPIRATIONS

Steady demand for goods  
Government aid to supplement income and compete with machine made goods in the market

## NEEDS

Steady source of income and greater income returns for the effort put in  
Greater share of the profits



**Shyam Das**

## CHARACTERISTICS

Shyam works in his home along with his 3 brothers and has a well established business. Their business is looked after by one of his brothers and they sell their products to a seller in the city directly and split the income.

## FRUSTRATIONS

Seasonal nature of the industry and declining demand for goods  
Lack of government support towards this traditional industry  
Competition from machine produced and cheaper products

## ASPIRATIONS

Steady source of income throughout the year  
Find markets for the industry outside the state

## NEEDS

To reinvent the traditional industry to ensure sustained popularity and demand





## **The Problem**

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The lack of a producer-seller network which often leads the workers to face exploitation by middlemen and sellers.



# Constraints

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1. Poor connectivity (telecommunication and road)
2. Lengthy Manufacturing Process and high cost of resources
3. Technologically Backward – limited access to computers and smartphones
4. Financially constrained and high illiteracy



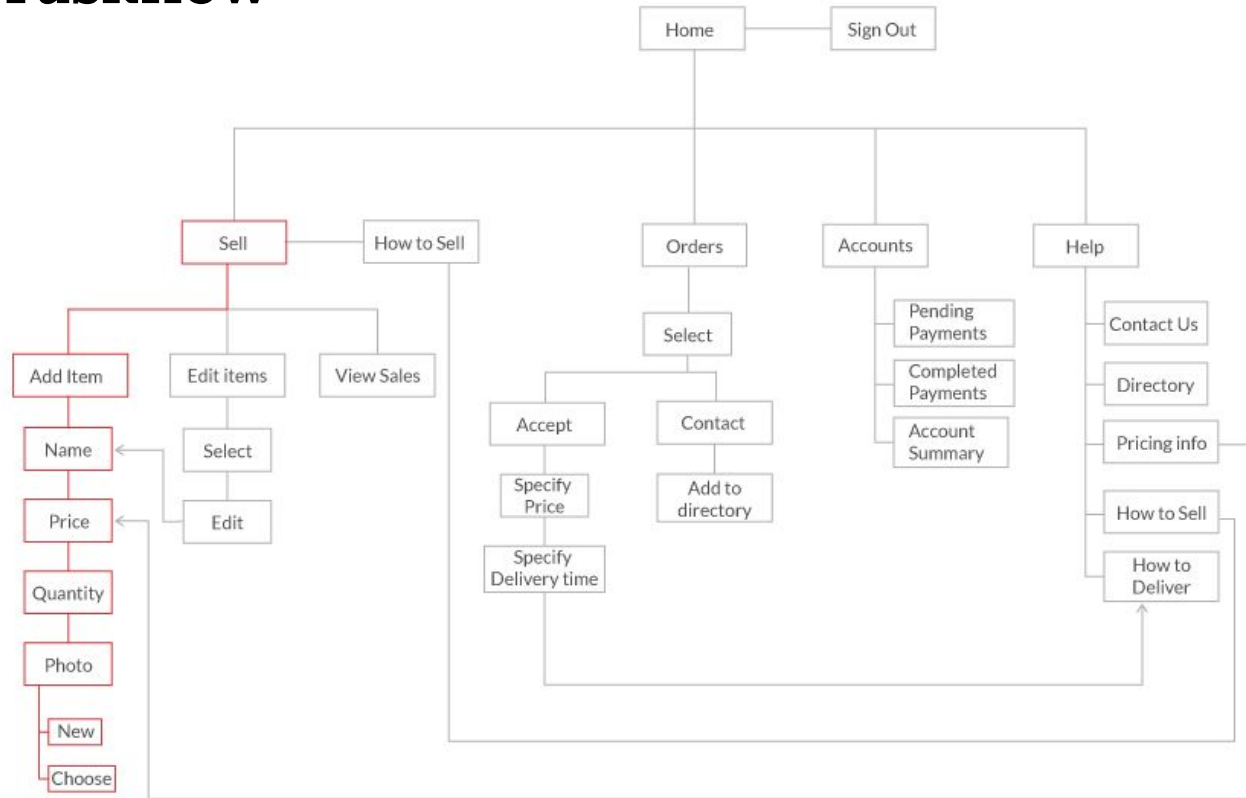
# Design Guidelines

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1. Cheap android tablet compatibility which could be afforded by the users
2. Simple UI with text-to-speech output for onscreen elements
3. Ensuring accountability of buyer and sellers
4. Local (assamese) language compatibility
5. Promotion of community ownership through trade unions



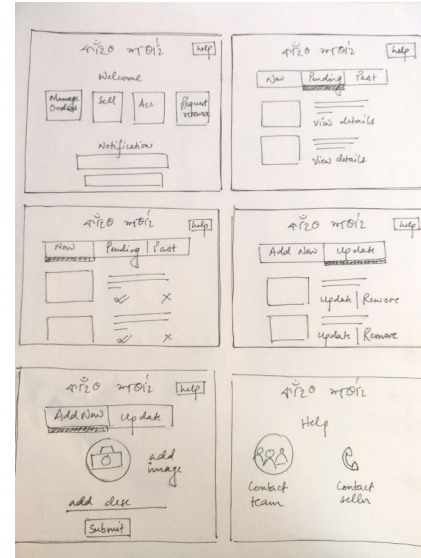
# Taskflow





# Ideation

We created sketches based upon the task flow. Here, we did consider the idea of an android app but felt that'd not be feasible due to the constraints such as illiteracy and vernacular language support requirements.





## Solution

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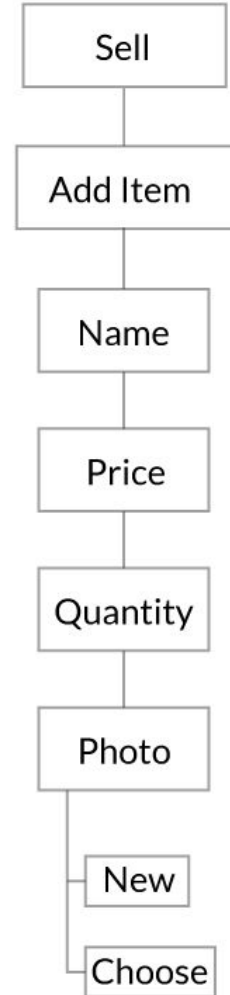
Our ideated solution was a system which will send out information about the nearest food kitchens on demand from the users.

We then defined all the adjacent needs of the user and how the system can be used to meet them.



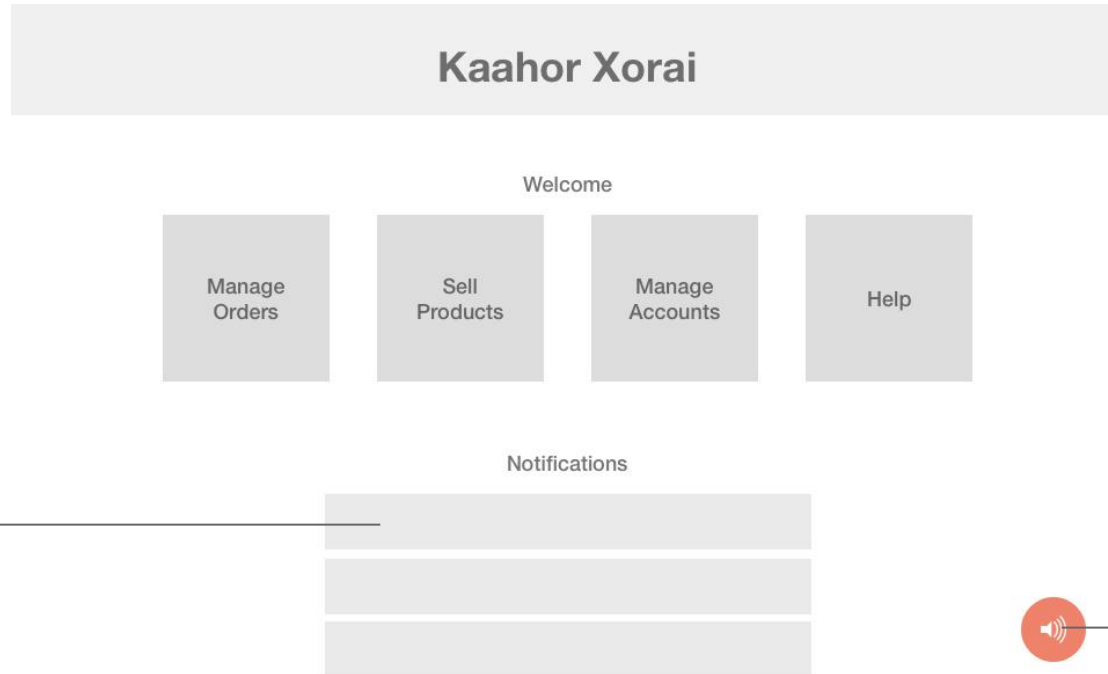
# Taskflow

In this presentation I'd just focus on the design of the interface for how the user would sell an item by advertising it on the platform. This involves the tasks of adding an item and its relevant information that a seller would require such as price etc.





# Wireframes



Notifications would provide the user with immediate need-to-know information on the landing page



Initiates voice descriptions for each interface elements which would be highlighted as well.





# Wireframes

Kaahor Xorai

Sell Products



Update Product



Request Assistance

**Price**

Order Details

Seller Information



**Price**

Order Details

Seller Information



**Price**

Order Details

Seller Information



Kaahor Xorai

Add New Product

**PRODUCT NAME**

List of Products

List of Products



**UNITS AVAILABLE**

20



Update Product

**PRICE PER UNIT**

Rs 500



Request Assistance

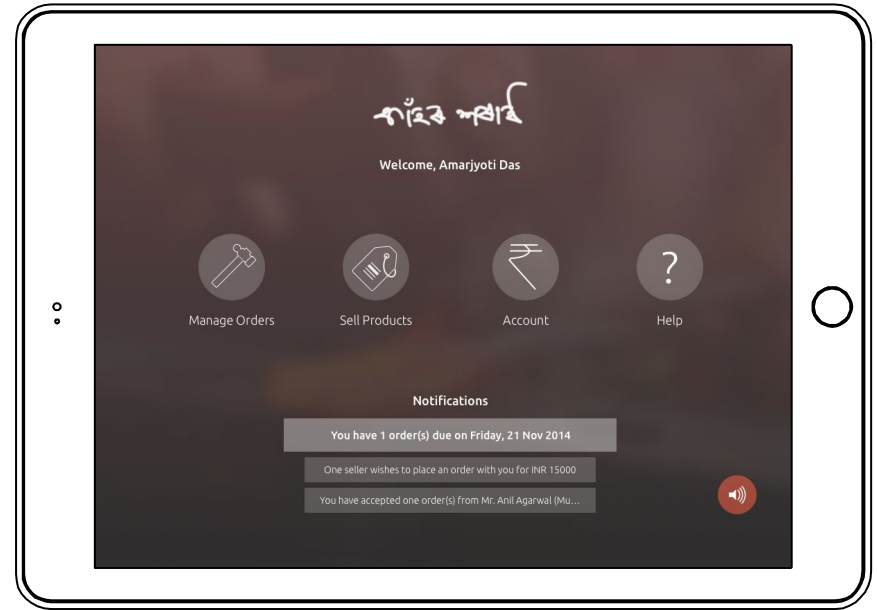
Add Product





# Interface

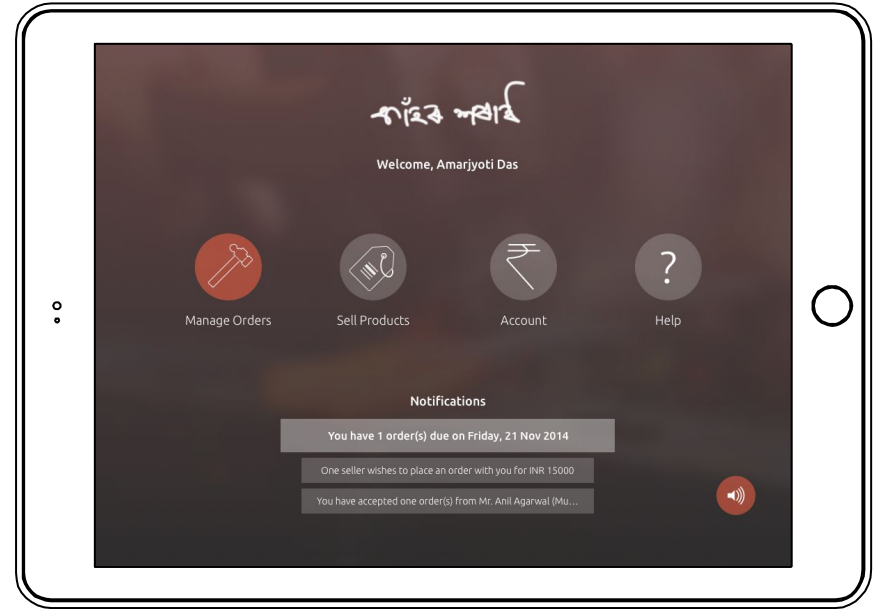
Landing page. The interface provides the relevant tasks on top and allows the user to readily find notifications regarding pending/new orders etc.





# Interface

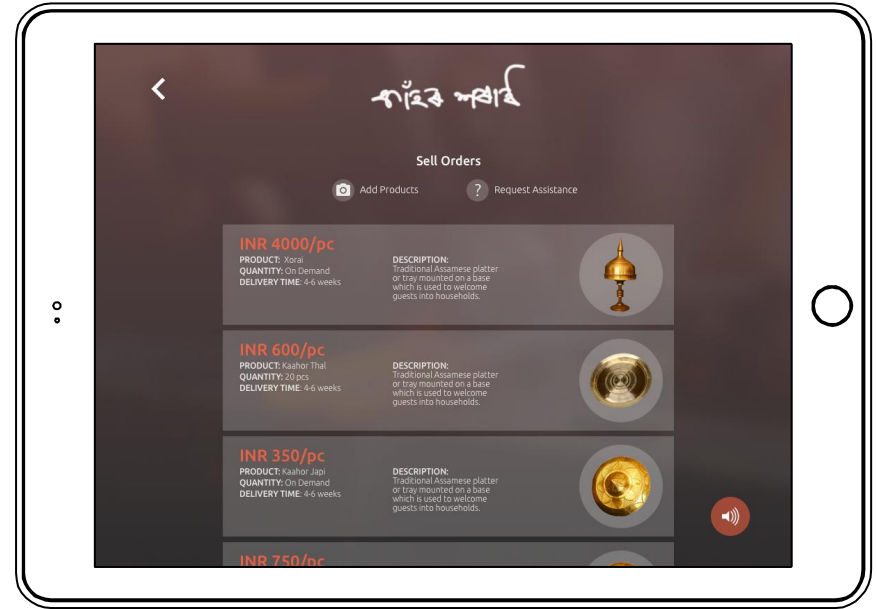
The voice button will highlight what the purpose of each of the buttons, focusing on more illiterate audiences.





# Interface

When a user wishes to sell products he is shown the list of products that they have already advertised and the option to add another product.



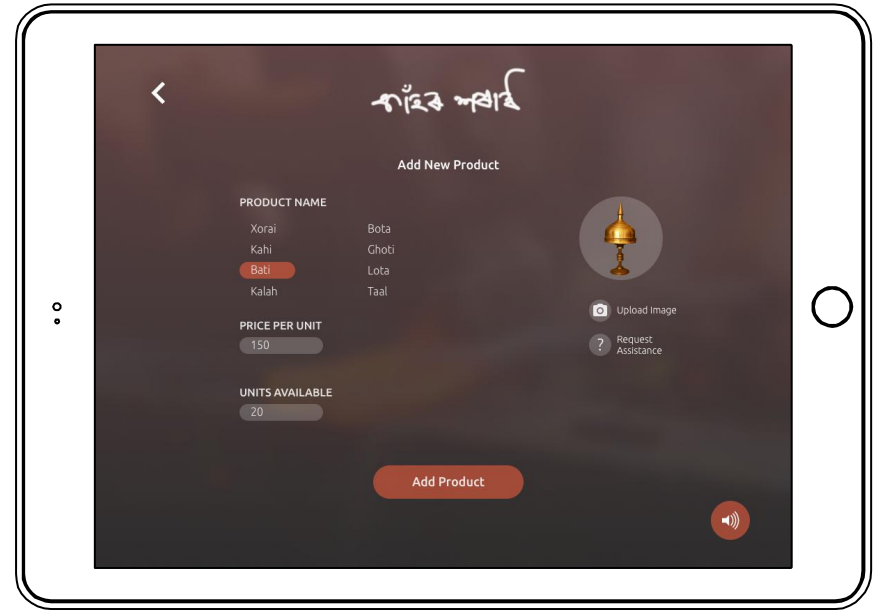


# Interface

Users need to select the type of product and upload an image.

Additional information such as price and the number of units are also required.

Assistance can be requested on pages which require more user action





# Reflection

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First interaction design project and involves population from my home state. I often think about how this project could have been improved.

Extending the idea to create a solution which connects producers, artists and sellers.