

I-564

Final Project Report

Joe Kratzat (joe.kratzat@gmail.com)
Sung Pil Moon (monspol@gmail.com)

[GENIE: INNOVATIVE SHOPPING SERVICE]

I-564 Prototyping Class, HCI, Informatics, Indiana University Indianapolis

I. Introduction

Our shopping model is an innovative and integrated method using social media and instant notification service in mobile device. The idea is to bridge a social network with a classifieds website. This would have an over arching effect of allowing sellers and buyers to be passively searching for each other and active searching as well. This idea was brought from the problems of current online shopping site, auction site, and online social shopping service.

A. Problems

- There are too many sellers (competitors) in shopping sites such as craigslist
- User posts can be lost in the crowd
- Hard to reach direct buyer.
- Many times the item is already sold.
- With a faster face to face interaction, it would be easier to sell the item
 - Gives higher credibility & less possibility of security concerns
- Buyers tend to buy something that their friends recommend.

B. Scope and assumption

- Seller doesn't want to ship his / her item(s)
- Buyer doesn't want to pay for shipping
- Buyers / seller might prefer direct purchasing

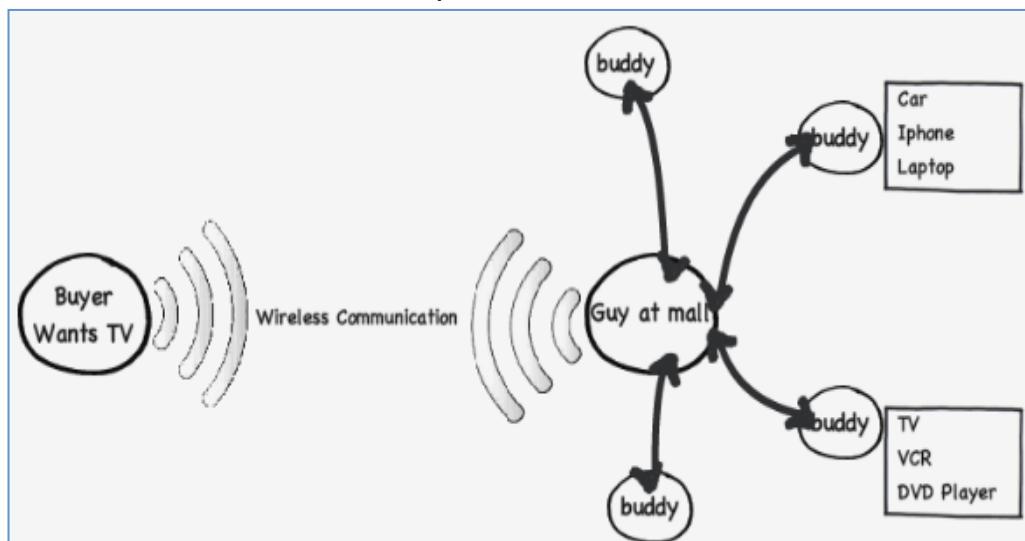
II. Concepts

A. Requirement Set

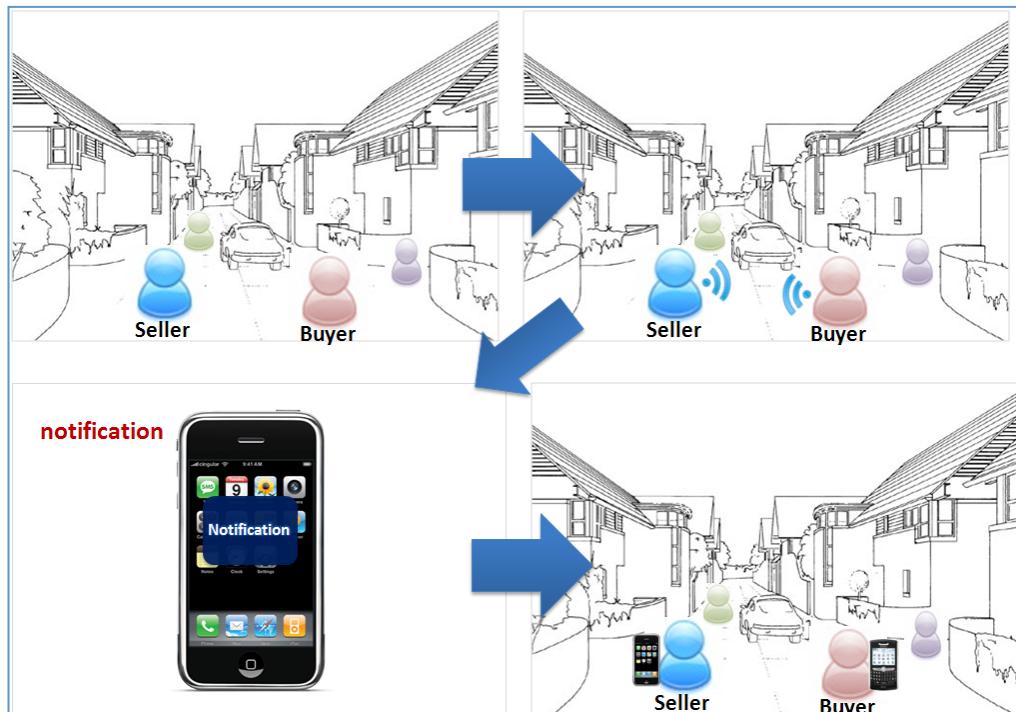
- i. Service should be easy to use, and to learn
- ii. Service allow users to use social networking to facilitate a face-to-face transaction
- iii. Service should provide a direct bridge between seller and buyer
- iv. Mobile Genie service should be ubiquitous
- v. Mobile Genie service allow users reach someone who has matched item
- vi. Mobile Genie service should keep users' private information secured

B. Design Concept

- Basic design concept is that the user who wants to buy some specific item can reach seller who wants to sell what a buyer wants to buy via our service. The service is not just one-to-one point selling.
- For example, one buyer is walking through the mall. He/she passes by someone in the mall who has a buddy selling a TV which the buyer is looking for. It notifies both buyer and seller about each other and passes contact information.



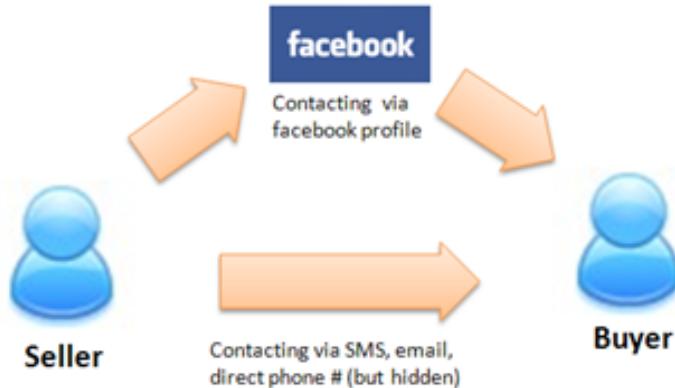
C. Flow Diagram



D. User Profiles

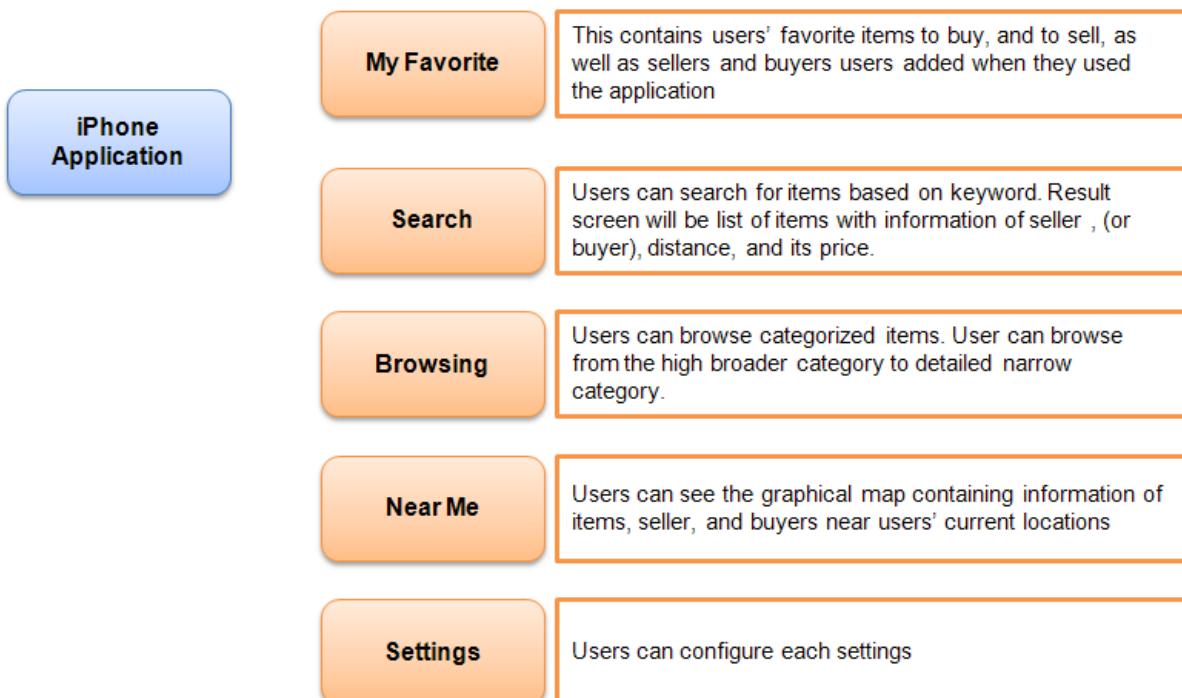
i. 4 Contacting methods

- Phone Number (hidden)
- Email (hidden)
- SMS (hidden)
- Facebook profile



E. Functional Set

i. Genie application



ii. Facebook marketplace



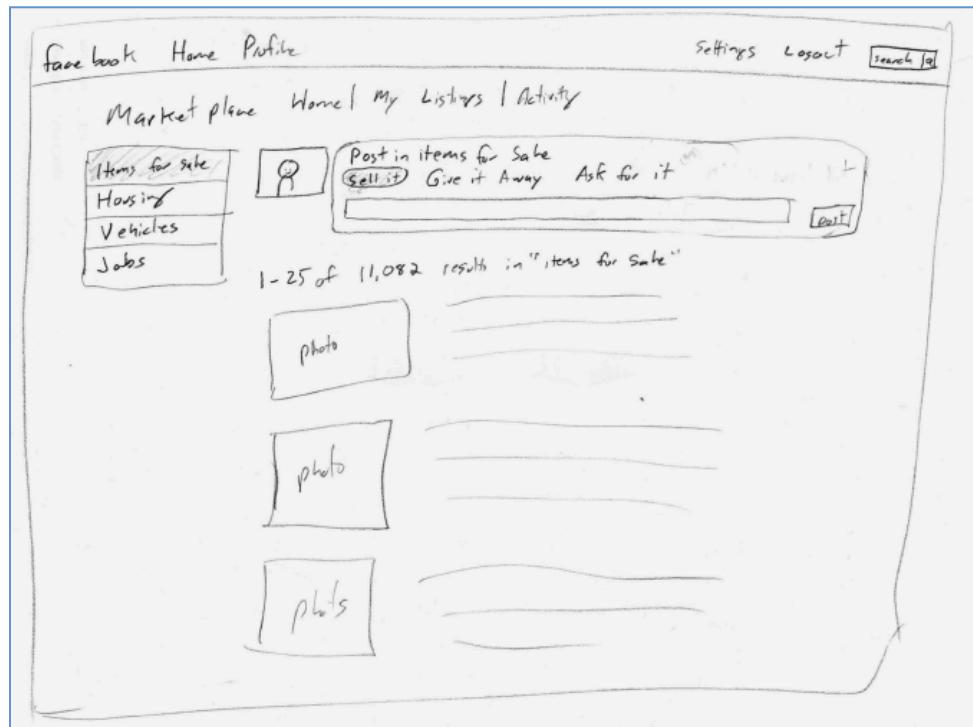
III. Early Prototype

A. Facebook Marketplace

- Service Flow



- Sell it Screen

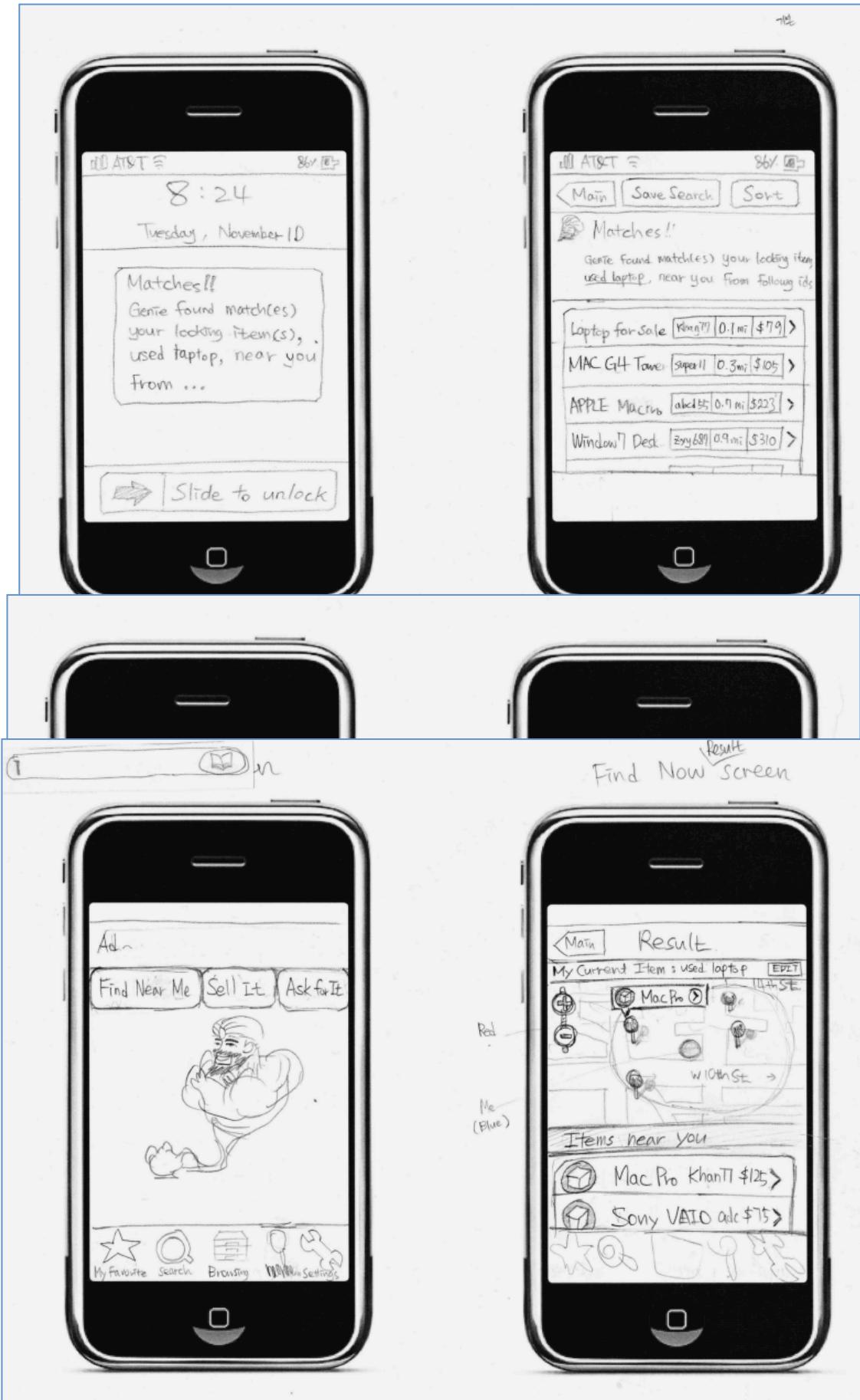


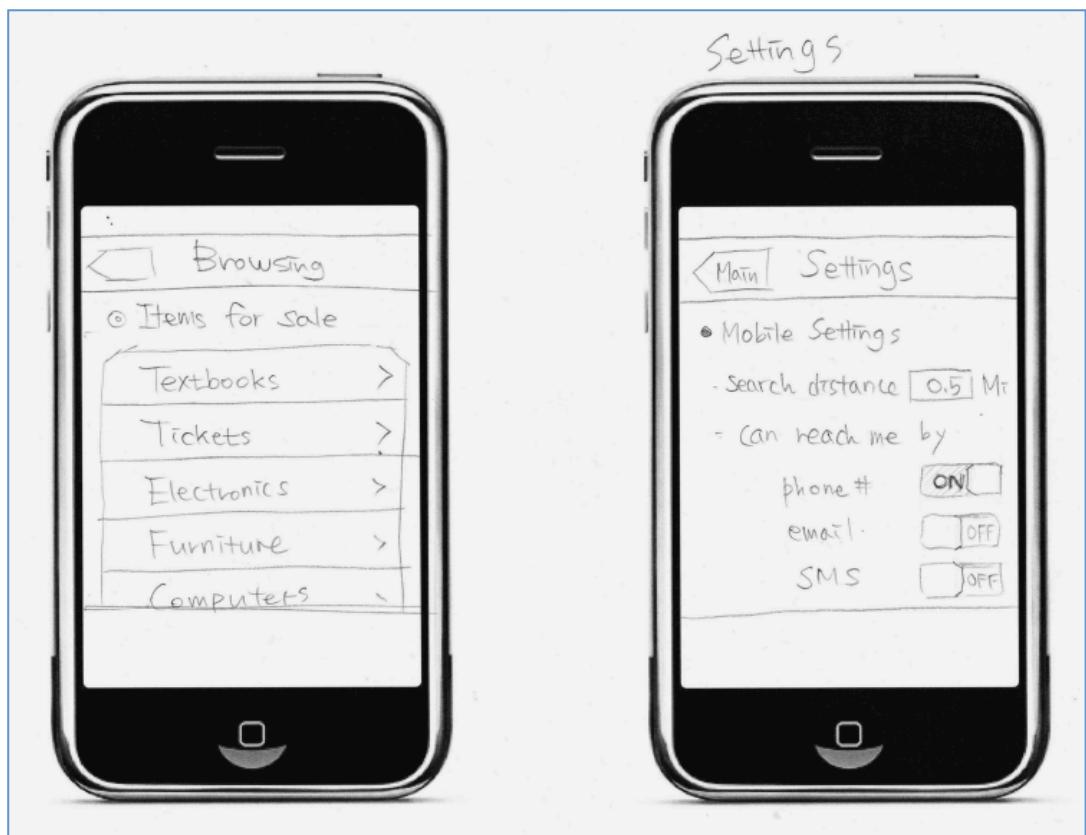
- First Marketplace screen

- ‘Sell it’ and ‘Ask for it’ popup screens

| | |
|--|---|
| <p>Sell It - Details</p> <p>Title: <input type="text"/></p> <p>Why are you selling it? <input type="text"/></p> <p>Price <input type="text"/></p> <p>Category <input type="text"/> ▾</p> <p>Location <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Indianapolis, IN</p> <p>Description <input type="text"/></p> <p>My profile <input checked="" type="checkbox"/> Market Place may display my Name + profile picture with my listing(s)</p> <p>Photos (s) <input type="text"/> choose file <input type="button" value="choose file"/></p> <p><input type="button" value="Submit"/> <input type="button" value="Cancel"/></p> | <p>Ask for it to</p> <p>Title <input type="text"/></p> <p>Why do you want it? <input type="text"/></p> <p>Category <input type="text"/> ▾</p> <p>Location <input checked="" type="checkbox"/> US <input checked="" type="checkbox"/> Indianapolis, IN</p> <p>Description <input type="text"/></p> <p>My profile <input checked="" type="checkbox"/> Market Place may display my Name + profile picture with my listing(s)</p> <p><input type="button" value="Submit"/> <input type="button" value="Cancel"/></p> |
|--|---|

B. Genie Application





IV. Walkthrough

A. Demographic of Participants

| Participant | Age | Tech background | Facebook User | Smartphone User |
|-------------|-----|-----------------|---------------|-----------------|
| Female | 28 | Low | O | X |

| | | | | |
|--------|----|--------------|---|---|
| Male | 27 | High | O | O |
| Male | 28 | High | O | X |
| Female | 23 | Intermediate | O | O |

B. Tasks

- ii. Task 1: Sell an Item in the Facebook marketplace
- iii. Task 2: Buy an item in the Facebook marketplace
- iv. Task 3: Contact a seller of an item with a Genie application
- v. Task 4: Search for an item nearby.
- vi. Task 5: Set up user's privacy

C. Result of Key finding Result

- vii. All participants successfully finished all tasks.
- viii. Most of participants were satisfied with the concept of services due to its quickness, simplicity and convenience
- ix. Some of them are also interested in the difference between passive search and active search
- x. Some of them also wanted to know ways to integrate Facebook marketplace and Genie mobile application.
- xi. There were some issues of wordings and interfaces which made users confused in mobile genie application and Facebook marketplace service.
- xii. Some of them suggested the different layouts of components regarding usability

V. *High Fidelity Prototypes*

A. Facebook Marketplace

- Ask screen

Facebook

http://www.facebook.com

facebook Home Profile Friends Inbox Jack Flash Settings Logout Search

Marketplace Home My Listings

Items For Sale

Housing

Vehicles

Jobs

Post in Housing

Sell it Give it away Ask for it

What are you selling? Post

1 - 25 of 6,264 results in "Housing"

Location: Indianapolis, IN (+ 50 miles) Settings

X Wanted: Rocketfish Webcam for \$40
Kayla Houssian

X 2009 Kaplan GRE Prep Book & Math Workbook for \$30
Jessica Price Indianapolis, IN

Search Items For Sale

Subcategory

For Rent - Apartments
For Rent - Condos
For Rent - Homes
For Rent - Short Term
For Rent - Other
Roommates
For Sale - Condos
For Sale - Foreclosures
For Sale - Homes
For Sale - Other

- Ask complete screen

Facebook

http://www.facebook.com

facebook Home Profile Friends Inbox Jack Flash Settings Logout Search

Marketplace Home My Listings

Items For Sale

Housing

Vehicles

Jobs

Post in Housing

Sell it Give it away Ask for it

What are you selling? Post

1 - 25 of 6,264 results in "Housing"

Location: Indianapolis, IN (+ 50 miles) Settings

X Wanted: Apt for rent
Jack Flash
Indianapolis, IN

X Wanted: Rocketfish Webcam for \$40
Kayla Houssian

X 2009 Kaplan GRE Prep Book & Math Workbook for \$30
Jessica Price Indianapolis, IN

Search Items For Sale

Subcategory

For Rent - Apartments
For Rent - Condos
For Rent - Homes
For Rent - Short Term
For Rent - Other
Roommates
For Sale - Condos
For Sale - Foreclosures
For Sale - Homes
For Sale - Other

- Ask item dialog screen

The screenshot shows a Facebook browser window with the URL <http://www.facebook.com>. The user is logged in as 'Jack Flash'. The main navigation bar includes Home, Profile, Friends, Inbox, Marketplace, and a search bar. The Marketplace tab is selected, and the 'My Listings' button is highlighted. On the left, there's a sidebar for 'Items For Sale' with categories: Housing (selected), Vehicles, and Jobs. Below it is a search bar for 'Search Items For Sale'. The main content area displays a modal dialog titled 'Post in Housing' with the sub-section 'Ask For It - Details'. The form fields include:

- Title: Apt for rent
- Why do you need it? (empty text area)
- Category: Select a Category (dropdown menu)
- Location: United States, Indianapolis, IN
- Description: (empty text area)
- My Profile: A checkbox labeled 'Marketplace may display my name and profile picture with my Listing(s)' is checked.
- Buttons: Submit and Cancel

- Item post complete screen

The screenshot shows a Facebook browser window with the URL <http://www.facebook.com>. The user is logged in as 'Jack Flash'. The main navigation bar includes Home, Profile, Friends, Inbox, Marketplace, and a search bar. The Marketplace tab is selected, and the 'Home' button is highlighted. On the left, there's a sidebar for 'Items For Sale' with categories: Housing (selected), Vehicles, and Jobs. Below it is a search bar for 'Search Items For Sale'. The main content area displays a modal dialog titled 'Post Item for sale' with the sub-section 'Ask for it'. The form fields include:

- Sell it, Give it away, Ask for it (buttons)
- What are you selling? (empty text area)
- Post button

Below the modal, the results for a search are shown:

1 - 24 of 24 results in "Furniture"

Location: Indianapolis, IN (+ 50 miles) Settings

| Item Description | Poster | Location |
|--|--------|-----------------------------------|
| Big kitchen table | | Jack Flash Indianapolis, IN |
| Wanted: Rocketfish Webcam for \$40 | | Kayla Houssian |
| 2009 Kaplan GRE Prep Book & Math Workbook for \$30 | | Jessica Price Indianapolis, IN |

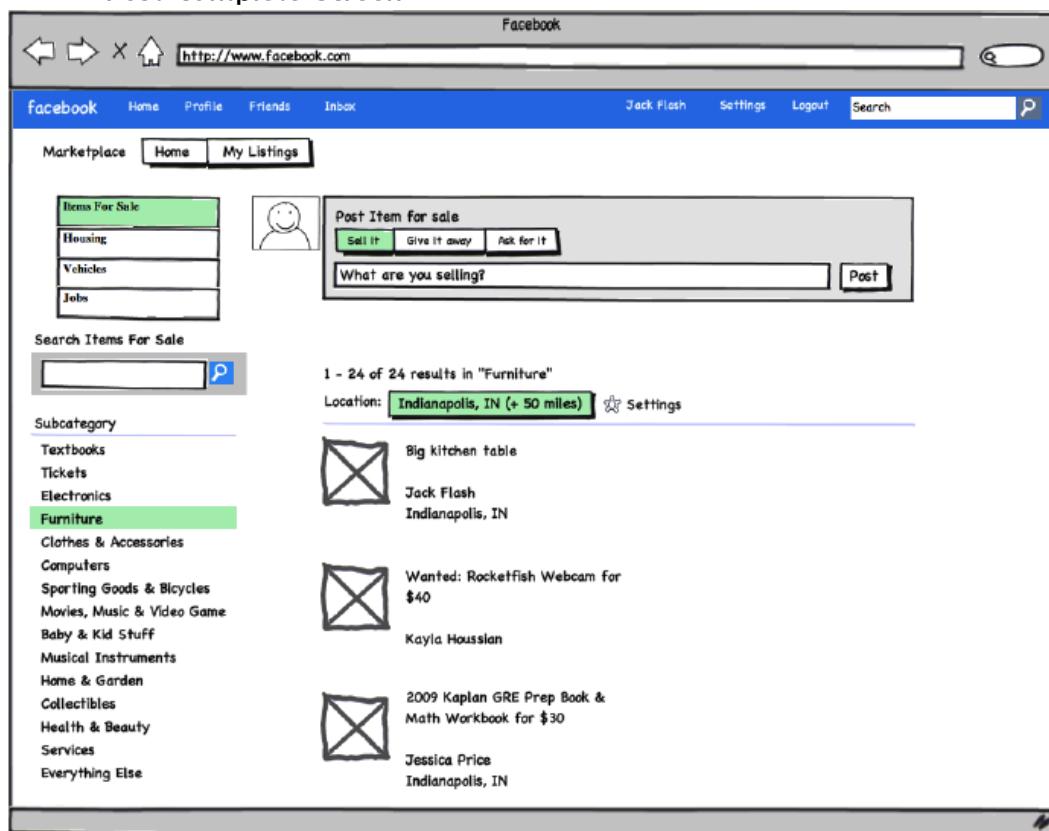
● Marketplace screen

The screenshot shows the Facebook Marketplace screen. At the top, there's a navigation bar with links for Home, Profile, Friends, Inbox, Jack Flash, Settings, Logout, and a Search bar. Below the navigation bar, the page title is "Marketplace" with "Home" and "My Listings" buttons. A location dropdown shows "Indianapolis, IN (+ 50 miles)" and a "Settings" link. On the left, there's a sidebar with a search bar, a "Items for sale" section with a "+ Post" button, and categories like Textbooks, Tickets, Electronics, Furniture, Clothing, More, Housing, For Rent - Apts, For Rent - Condos, For Rent - Homes, and More. To the right, under "Most Recent Listings", there are two items: "Rocketfish Webcam for \$40" by Kayla Houssian from Indianapolis, IN, and "2009 Kaplan GRE Prep Book & Math Workbook for \$30" by Jessica Price from Indianapolis, IN.

● Post screen

The screenshot shows the Facebook Post screen for the Marketplace. The top navigation bar and Marketplace header are identical to the previous screen. The main area features a "Post Item for sale" form with fields for "Sell it", "Give it away", and "Ask for it", and a "Post" button. To the left, there's a sidebar with a "Items For Sale" section containing "Housing", "Vehicles", and "Jobs", and a "Search Items For Sale" bar. Below the sidebar is a "Subcategory" list with categories like Textbooks, Tickets, Electronics, Furniture, Clothes & Accessories, Computers, Sporting Goods & Bicycles, Movies, Music & Video Game, Baby & Kid Stuff, Musical Instruments, Home & Garden, Collectibles, Health & Beauty, Services, and Everything Else. To the right, the "Most Recent Listings" section shows the same two items as the previous screen: "Rocketfish Webcam for \$40" by Kayla Houssian and "2009 Kaplan GRE Prep Book & Math Workbook for \$30" by Jessica Price.

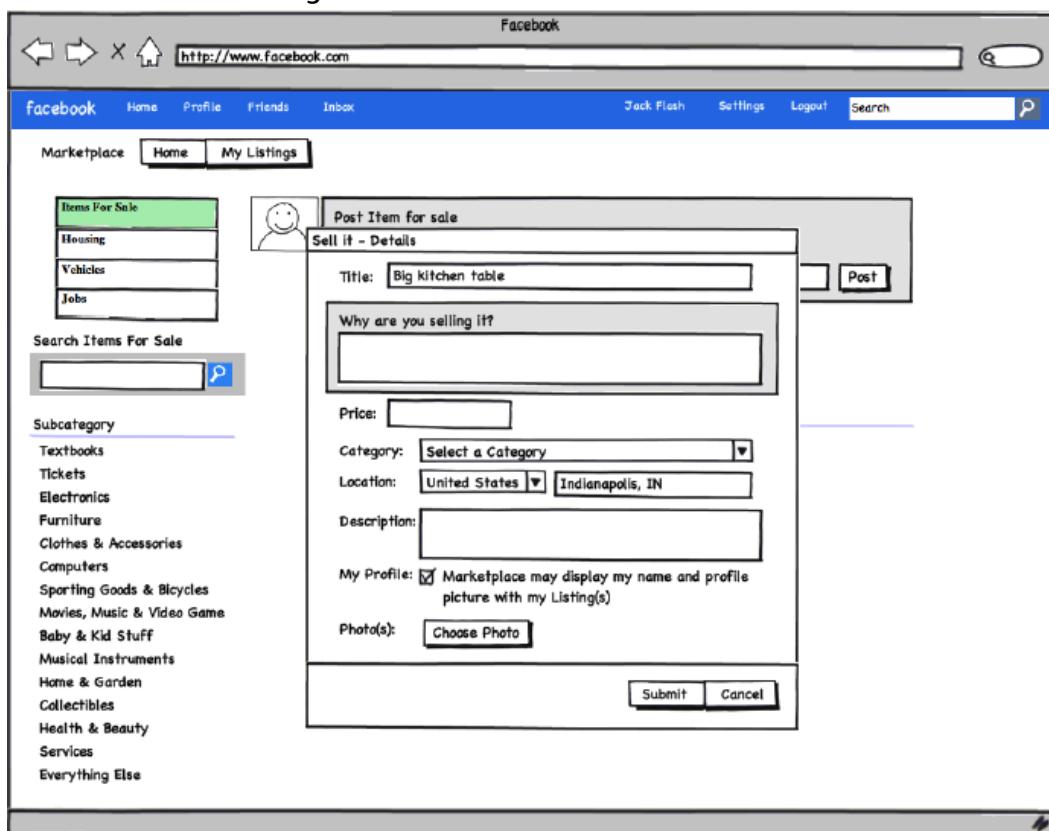
● Post complete screen



This screenshot shows the Facebook Marketplace interface after a post has been completed. At the top, there's a navigation bar with links for Home, Profile, Friends, and Inbox, along with user information for 'Jack Flash' and a search bar. Below this is the 'Marketplace' header with 'Home' and 'My Listings' buttons. A sidebar on the left lists categories under 'Items For Sale': Housing, Vehicles, Jobs, and Furniture (which is highlighted with a green background). The main content area shows a search bar and a list of results for 'Furniture' in 'Indianapolis, IN (+ 50 miles)'. The results include three items:

- Big kitchen table** by Jack Flash, Indianapolis, IN
- Wanted: Rocketfish Webcam** for \$40 by Kayla Houssian
- 2009 Kaplan GRE Prep Book & Math Workbook** for \$30 by Jessica Price, Indianapolis, IN

● Sell item dialog screen



This screenshot shows the 'Post Item for sale' dialog box on the Facebook Marketplace. The dialog is titled 'Sell it - Details' and contains the following fields:

- Title:** Big kitchen table
- Why are you selling it?** (Text area)
- Price:** (Text area)
- Category:** Select a Category
- Location:** United States, Indianapolis, IN
- Description:** (Text area)
- My Profile:** A checkbox is checked, with the text: 'Marketplace may display my name and profile picture with my Listing(s)'.
- Photo(s):** Choose Photo

At the bottom of the dialog are 'Submit' and 'Cancel' buttons.

B. Genie Application

- Match notification screen



- Matched Item list screen



- Item description screen



- Genie icon screen



- First screen



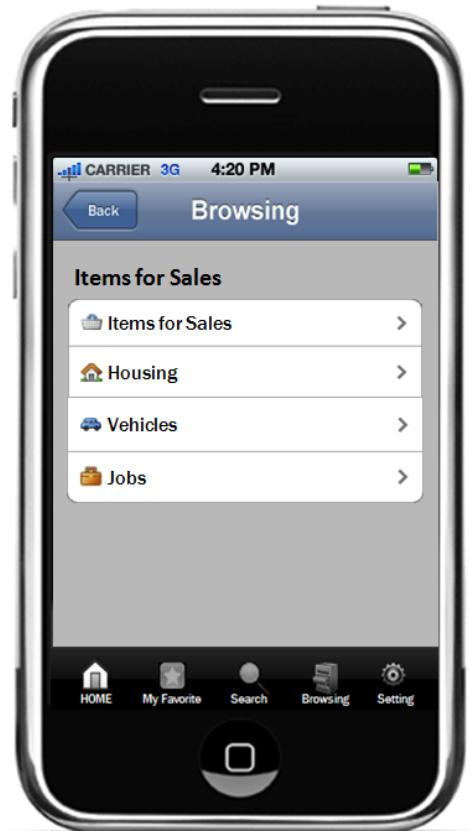
- Find Near Me screen



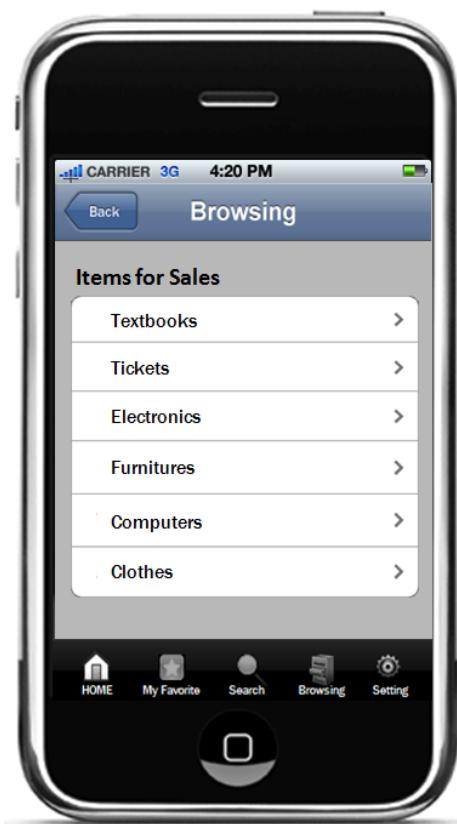
- My Favorite screen



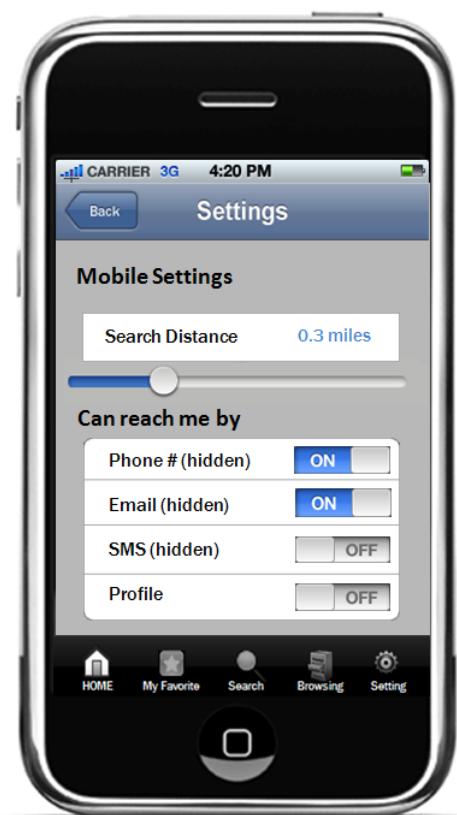
- Browsing Screen



- Detailed Browsing Screen



● Setting Screen



VI. Suggested Changes

- A. Wish lists**
- B. Issues to be solved**
 - i. multitasking
 - ii.

VII. Appendix

A. Script for User Testing

Genie Script

Greeting:

Thank you very much for participating in our walkthrough of our Genie application. The goal of this is to evaluate the interface and experience of the Genie system. The results of our evaluation will be summarized and reported to the IUPUI Informatics Human Computer Interaction class in the Fall of 2009 as part of the course requirements. You will be asked to use the Facebook and Genie system to run through a variety of tasks. You will be asked to "think aloud" as you try to complete the tasks.

Explanation:

We'll start with a general overview of what the Genie application is and how it ties into facebook.

Facebook as a new feature called Facebook Marketplace. This allows users to buy, sell and give things away to anyone on the Facebook social network. The Genie product will allow a Facebook user to *passively* search for items they want using their phone.

The main part of Genie's search functionality happens passively as a user goes about their daily lives. The Genie application is constantly running on your phone, checking for other Genie users near you. Once it finds a nearby user the phone will alert you about the product(s) it found. This way you can contact the seller and maybe setup a more personal transaction.

With items being sold on social sites all the time the Genie application allows the buyer and seller to meet in person to carry out the transaction. However, for security concerns you will have the ability to limit the mediums you can be contacted in (i.e. SMS, Email, Phone).

Directing Participant's Behavior:

At this point I will read a set of tasks for you to complete using either the Facebook website or the iPhone applications.

Prompts to ask user: "What are you thinking?"

"Are you stuck?"

Debriefing:

How did you feel about the tasks overall?

Tell me about what happened when [cite problem/error/excessive time].

What would you say was the best thing about the Genie experience?

What would you say was the worst thing about the Genie experience?

B. Tasks Description

Task 1: Sell Item

| | |
|------------------------|---|
| Goal/output: | Sell an item |
| Inputs/Assumptions: | <ul style="list-style-type: none">• All text input fields are filled out• User already has Facebook account• User is logged into Facebook |
| Steps: | <ol style="list-style-type: none">1. Make sure the “Marketplace page is the first page.2. Click either Post button or Furniture link under Items For Sale3. Click Post button4. Click Submit |
| Time for expert: | < 1 minute |
| Instructions for user: | You are tired of your extra large kitchen table (it's taking up too much room). You would like to sell it on the Facebook Marketplace so you can buy a smaller one that matches your newly decorated kitchen better. |
| Notes: | |

Task 2: Buy Item

| | |
|------------------------|---|
| Goal/output: | Buy an item |
| Inputs/Assumptions: | <ul style="list-style-type: none">• All text input fields are filled out• User already has Facebook account• User is logged into Facebook |
| Steps: | <ol style="list-style-type: none">1. Make sure the “Marketplace page is the first page.2. Click either Post button under Housing3. Click Ask For It button4. Click Post button5. Click Submit |
| Time for expert: | < 1 minute |
| Instructions for user: | In a few months your lease at your current apartment will be up. At this point you aren't too stressed about finding a place, but you want to keep your eyes open for a good place. Use Facebook Marketplace to look for a new apartment. |

| | |
|--------|----|
| | t. |
| Notes: | |

Task 3: Contact seller

| | |
|------------------------|---|
| Goal/output: | Contact seller of an item |
| Inputs/Assumptions: | <ul style="list-style-type: none"> • User has posted an item they want • Genie is installed on users phone • Genie is running on users phone |
| Steps: | <ol style="list-style-type: none"> 1. Make sure the “Notification” is the first page. 2. Click OK 3. Click the “Apple Mac Pro” 4. Click “SMS” |
| Time for expert: | < 1 minute |
| Instructions for user: | You are out doing a little shopping at the mall. As you are walking you feel your phone vibrate. You are notified that someone near you is selling an “Apple Macbook Pro” that you might be interested in. So you decide to get a hold of the seller via SMS. |
| Notes: | |

Task 4: Search for item nearby

| | |
|------------------------|--|
| Goal/output: | Find items a user is looking for nearby |
| Inputs/Assumptions: | <ul style="list-style-type: none"> • User has posted an item they want • Genie is installed on users phone |
| Steps: | <ol style="list-style-type: none"> 1. Make sure the page is set to “Icon-Screen” 2. Click on the Genie icon 3. Click “Find Near Me” 4. Click Settings 5. Change the search distance to .5 miles 6. Click back 7. See if there are any new items |
| Time for expert: | < 2 minute |
| Instructions for user: | <p>While traveling to a new city you notice that you haven't been notified by Genie for any new items for sale that match your criteria. You decide you are going to see what items might be around you.</p> <p>(after they navigate to the Find Near Me screen) As you se</p> |

| | |
|--------|--|
| | arch you see that there is you really want, but you remember you can change the radius of your search pattern. |
| Notes: | |

Task 5: Setup some privacy

| | |
|------------------------|---|
| Goal/output: | Hide user phone number to anyone trying to contact user |
| Inputs/Assumptions: | <ul style="list-style-type: none"> • User has posted an item they want • Genie is installed on users phone • User has posted an item to sell |
| Steps: | <ol style="list-style-type: none"> 1. Make sure the page is set to “FirstScreen” 2. Click settings 3. Click Phone#(Hidden) |
| Time for expert: | < 1 minute |
| Instructions for user: | After you posted an item you wanted to sell to the market place you stop and think, “I don’t want any weird-o to have my mobile number.” So you use Genie to make sure buyers can’t see your phone number when they try to contact you. |
| Notes: | |