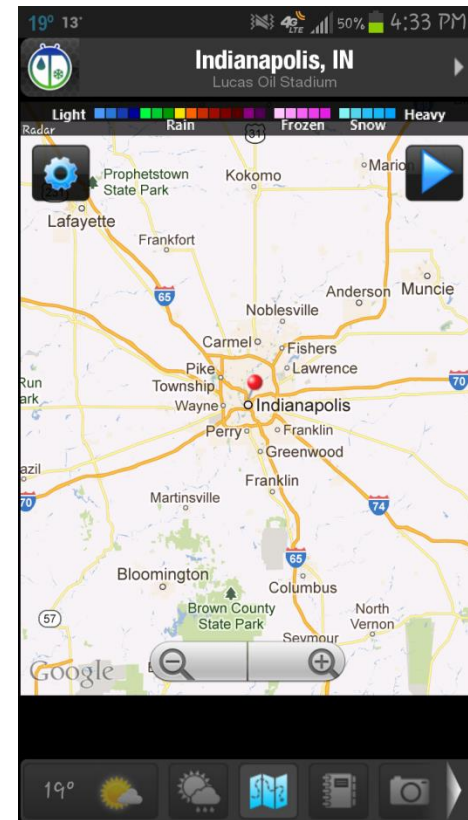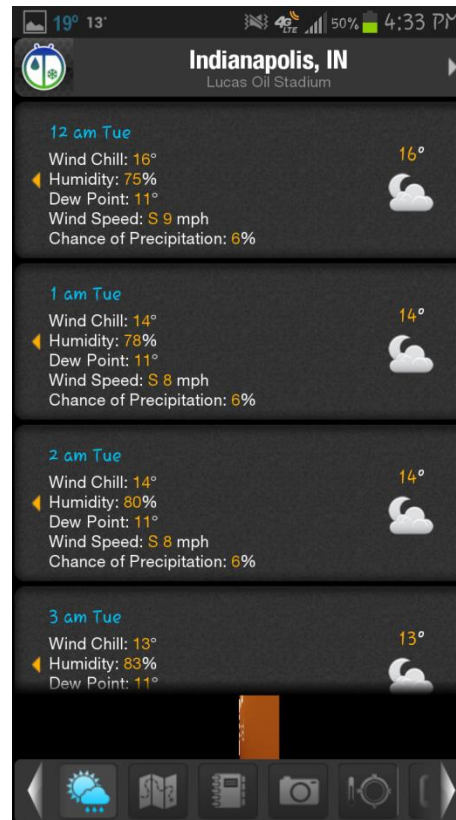# Redesign of Weatherbug

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for I561 Spring 2013
Guided by
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Introduction

Weatherbug is a weather application for smartphones.

Diary Study

Diaries were set up via Google Drive.

- o Prior to the first day of studies participants were asked to become familiar with the application.

- o During the study, participants were asked to use the application at least once per day.

- o Each person was given their own sheet to leave feedback on questions daily. A new document was given for each week of the study.

Week 1 — Overview

o Participants were asked to use the application at least once daily.

o Reminders were sent to participants to aid them in remembering to use Weatherbug.

o After use, participants were asked to answer the questions in their diary.

- Questions only needed answered once per day.

Data Collection

Week 1 — Diary format

o Participants used a "Word-style" document to keep track of their usage experiences each day.

o Questions to consider were located at the top, and places for detailing their usage experiences were spaced out through the rest of the document.

Diary Instructions:

Each day record information regarding the time(s) you used your Weatherbug application. While you do not have to use all of these, your writing may be aided by considering the following questions:

- Did you make any decisions after using the application?
- Did the use of the application trigger or affect any activities in your daily life? (i.e.
- taking an umbrella)
- Which feature(s) of the application did you use? Why did you choose these?
- Did you use any other application immediately following the use of Weatherbug?
- (Facebook, Twitter) If so, which applications did you use?
- How satisfied were you with your encounter(s) with the application?
- Any other comments or experiences regarding your use today.

Remember to take notes during the day when you utilize the application. Once per day please log the information you recorded earlier in the day.

Please begin your log here:

Tuesday, March 26, 2013
Time:
Location:
Notes:

Wednesday, March 27, 2013
Time:
Location:
Notes:

Data Collection

Week 1 — Usage Results

o 3 out of 4 participants recorded data.

o Of those 3, only 1 recorded every day.

Week 2 — Overview

o Participants were asked to use the application at least once daily.

o Reminders were sent to participants to aid them in remembering to use Weatherbug.

o After use, participants were asked to answer the questions in their diary.

- Questions only needed answered once per day.

Week 2 — Diary format

- Participants used a "Excel-style" spreadsheet to keep track of their usage experiences each day.

- Questions to consider were located across the top of columns, with dates down the left side.

- Documentation was kept in in the coordinating cells.

	Time of Day Used	Location	Feature(s) Used	Action(s) Taken After Application Use	Triggered or Affected Activity(ies)	Application(s) Used Weatherbug
Example	7:25 a.m.	Chicago, IL	Current weather, extended forecast, lifestyle forecast	Packed an umbrella	moved my run indoors	Twitter
4/2/2013						
4/3/2013						
4/4/2013						
4/5/2013						
4/5/2013						
4/7/2013						

Week 2 — Usage Results

o Everyone recorded data

o More useful data was obtained

Overall Results

o Participants want to know:

- the temperature
- whether conditions are suitable for outdoor activities
- the extended forecast
- weather in other locations — states

Affinity Diagram

Main Data Collected

o Applications that were used after the application

o Features currently being used

o Features that are currently not supported

o Features that are found annoying

o Decisions based on the applications
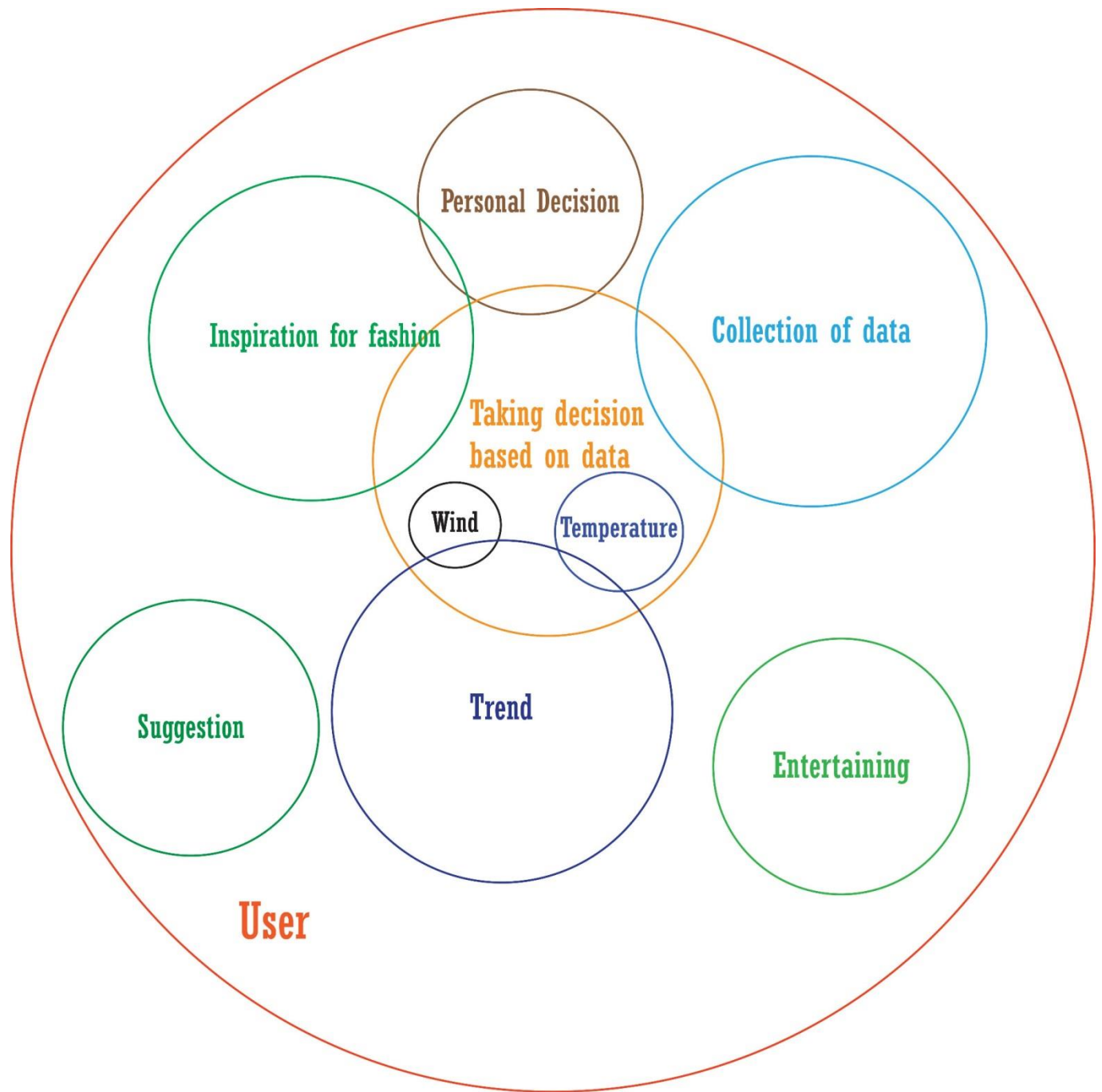
o Issues with the interface/applications

Findings

o Participants did not use many features, but the use of it influenced their actions after use.

- clothing selections, outdoor activities, coming weather preparations, etc.

o Problems with the interface

- Information overload
- Annoying ads at the bottom of the screen

Models
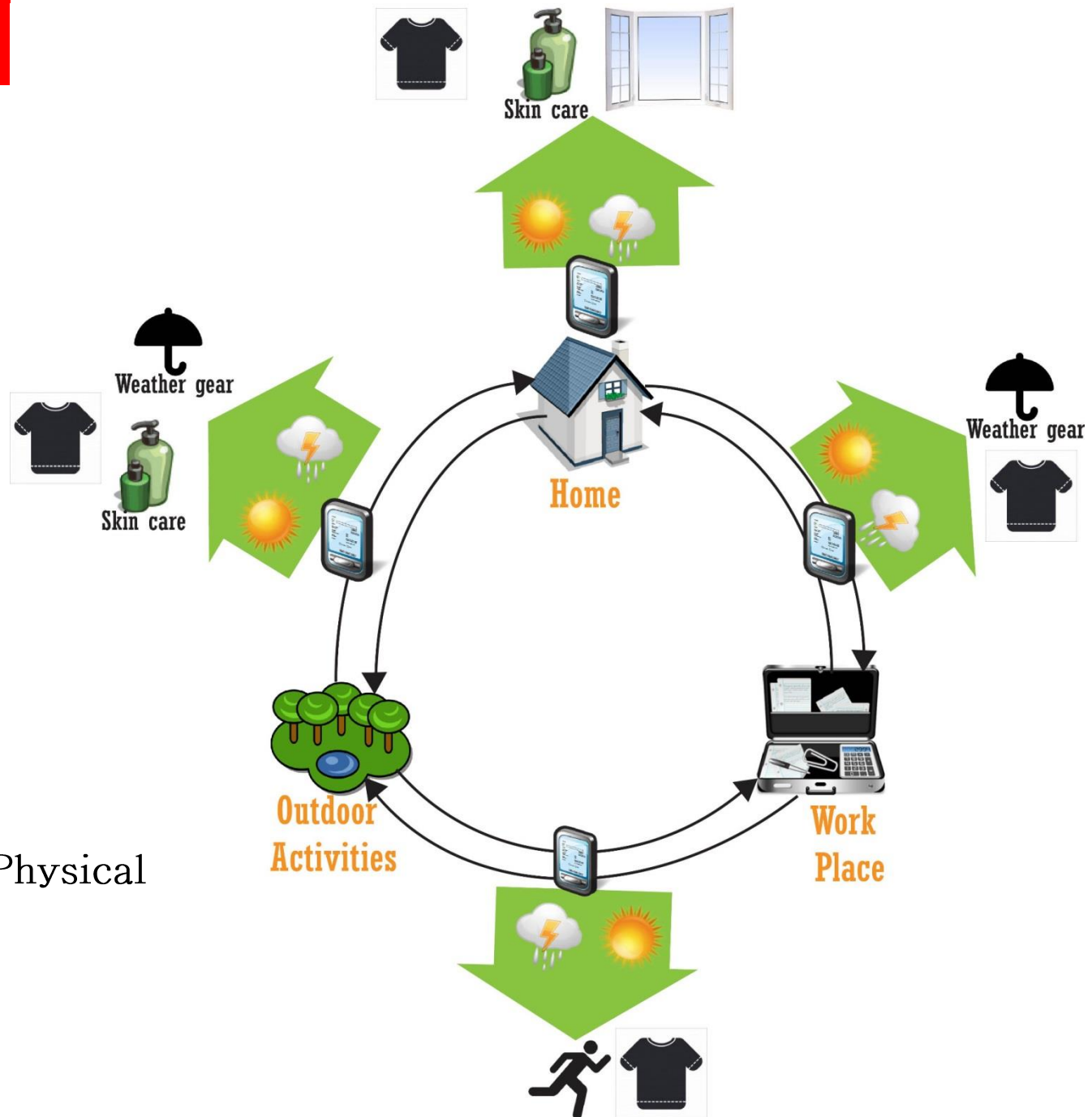
Artifact/Physical Model

Models

Cultural Model

User Requirements

Various user segments/ profiles were identified for the applications. Some of the most active user segments identified were:

- o Tourists
- o Office Goers
- o Fashionistas
- o Students
- o Sportsmen

Design Requirements

The requirement analysis from the models revealed:

o Redesigning of the web application to make it more user friendly with the help of usability issues discovered by Heuristic Analysis.

o Some of the information provided by the application was found to be too technical for the user segments to understand. It is proposed better information visualization for the application

Design Requirements

o   Some of the information seem irrelevant for the user however some of the information is found to be apt for some segment. Customization of the information is proposed to meet user needs.

o   The application has many facets of lifestyle forecasts. However the information is not visualized well and faces readability issues

Design Requirements

o The lifestyle forecasts are informative and hence less used. It is proposed to make the application more suggestive.

o With inference from the data analysis, showed a heavy influence over get up of the users. Hence it is suggested to have a deeper fashion forecast.

Usability Requirements

Some of the usability requirements that were identified for the interface with the help of heuristic evaluation and user feedback from the diary study conducted were found to be:

o option for location in home screen

o no heat index

o easy to transfer metric system

o keep the date and day together

o remove ad from the bottom

Usability Requirements

Effectiveness

- o The application needs to be effective to display the basic requirement of weather display.

Efficiency

- o The application needs to provide the information the user seeks in a timely manner.

- o User should be able to customize the application in such a way that the information s/he wants/needs regularly is available on loading.

Usability Requirements

Utility
- o The weather data provided should be applicable to real life and be able to suggest decisions based on it. The application should have extended utility to have a better return on investment.

Learnability
- o The application should be easy to learn so that the user does not become frustrated.
- o The application should be consistent with the design so that the users can easily learn what they are doing.
- o Over information has been hidden with an option to hide and unhide the information.

Usability Requirements

Memorability

- o The functions of the application should be easy to remember so the user does not have to relearn or put much thought into how to use the application.
- o Throughout the application we have tried to provide icons and small arrows that tend to indicate what the users need to chose from.

focus of design

Redesign
- Heuristics
- Visualization
- Consistency
- User feedback

Customize
- Reduced Text
- Personalize
- Limited feature

Feature
- Fashion forecast
- Business model

Some features directly
reflected in high fidelity.

Some features directly removed in high fidelity.

11° 9° ∞ ✕ ❗   🛜 4ᴳ .ull ⏰ 🔋 1:25 PM

Indianapolis, IN
Lucas Oil Stadium

conditions   apr 25, 2013 1:24 pm

10°C
          N
        13
    W mph E ▶
          S

Wind Chill: 7°

so far today
Precipitation: 0.0mm   **2 ALERTS**
Gust: W 36 mph

thursday forecast

☀️☁️   Partly Cloudy   HI: 13°
                          Lo: 2°

extended forecast

FRI	SAT	SUN	MON	TUE
☀️☁️	☀️🌧️	☀️🌧️	☀️☁️	☀️☁️
17°	17°	19°	22°	22°

There's Only One Kentucky.
CLICK FOR MORE INFO.

10° ☀️☁️   🌥️   🗺️   📒   📷   ▶

⋮

AT&T 8° 10°   ⏰ 4ᴳ .ull 51% 🔋 5:23 PM

My Location
Honolulu, HI   ◢   ≡

Customize Home Screen

Choose any features you wish
to see when Weatherbug loads.

☑Current Temperature
   Units   ☑heat index
     ◉F ○C   ☐wind chill
☑Current Conditions
     ☑Severe Weather Alerts
     ☑Hour By Hour Forecast
     ☑Lifestyle Outlook
     ☐Detailed Conditions

☑Extended Forecast
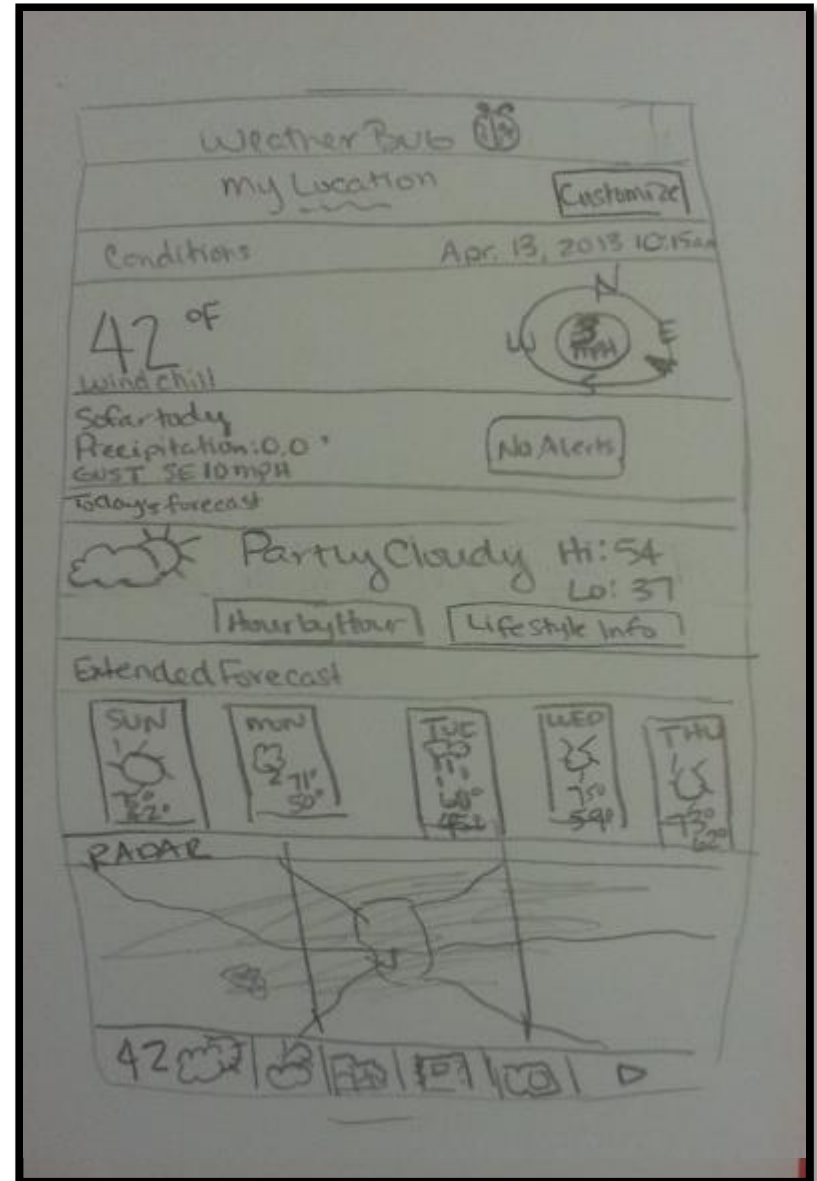   ◉5 Day   ○7 Day

☑Radar
☐Live Cameras
☐National Outlook
☑Fashion Outlook
     ◉Female ○Male

(Save)   (Cancel)

Current

Proposed

Current

Proposed
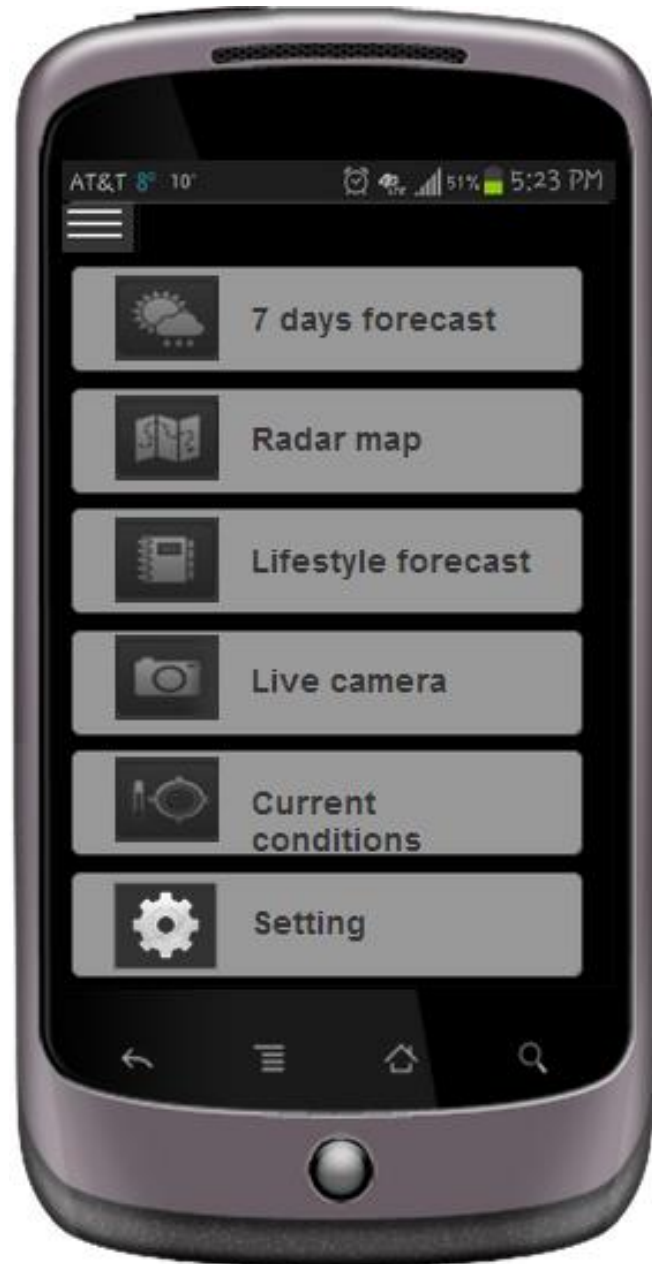
most users took fashion decisions form the data

Fashionistas

men-women

many agencies create fashion looks

Stakeholders

Fashion
Stores
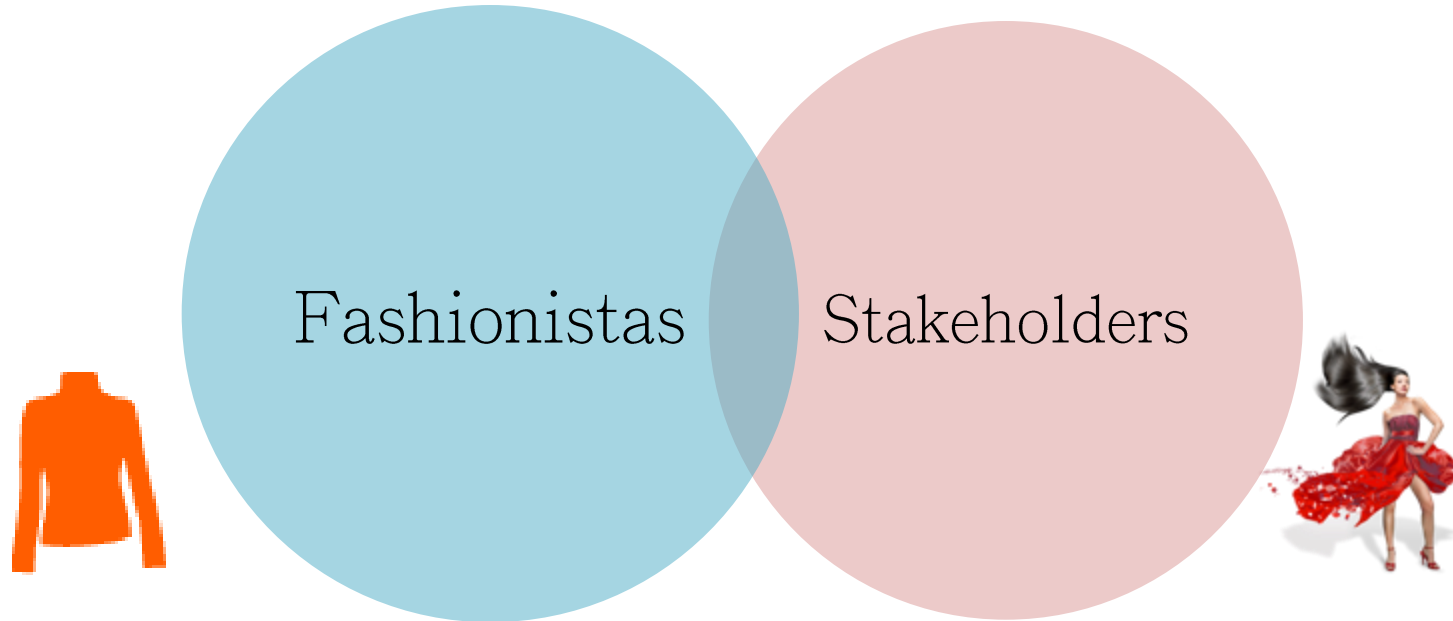
Fashionistas:
Look for latest trends in fashion.
They look for things

Stakeholders:
Post latest trends
People follow the trends

Business model

With WeatherBug

Users can check the forecast for the season.
Users can buy items shown in the weather.
Users can chose their fashion from their favorite
Store or magazine.

High fidelity prototype & scenarios

- [(Link)](#)
- **Scenario 1** -Rachel, fashionista
- **Scenario 2**- Robert, professional driver

User Feedback — Interface Redesign

- *Do you notice any difference from the previous versions?*

  Suggestion: Its not to place the new feature there because if the user has gotten used to that spot for an ad, s/he may automatically ignore anything there

- *What do you think of the information layout?*

  The blank (above the temperature) seems abrupt

- *How does the visualized forecast work for you when comparing to current WeatherBug layout?*

  The stack chart is confusing

  Suggestion: It is better to allow me to choose showing the diagram or not.

- *Does the new settings tab and icon make sense?*

  Icons are understandable and make sense.

User Feedback — Features Redesign

- *What do you feel when you can select information you want in Homescreen?*
  - Customization is good.
- *Would you regard that customized homescreen is a key value for you to use this weather application?*
- *Does lifestyle forecast makes sense in general (like all golf, outdoor, fashion etc)?*
  - Clarify between a style versus what to wear for certain weather.
- *How about the combination of sports, golf and family to outdoor?*
  - A bit confusing

User Feedback — Add-on-Value

- *Do you think fashion forecast makes sense? (You may not be a fashionista but maybe you can give an opinion for others)*

- *Will the application be used more if your favourite fashion stores, magazines take part in the application?*
  - Yes, so that I can buy clothes from stores I used to buy.
  - Suggestion: I think to involve some fashion blogger would also be helpful.

- *Will you use it instead of going to the particular store site?*
    - The browsing experience is very different.
    - the cloth shows up only in particular weather and it is hard for me to buy clothes at will.

- *Would you like to do a monetary transaction with the application?*
  - No. Would need far more details (at least larger pictures) before making a purchase decision

Future Work

- Providing customization for showing temperature variation figures
- Better graphs for trends
- Distinguish fashion industry and clothes forecast
- Consider how the models work together (business and design)